# ENVIRONMENTAL ENTERPRISES INCORPORATED

TREATMENT FACILITY
4650 Spring Grove Ave.
Cincinnati, Ohio 45232
(513) 541-1823
Fax: (513) 541-1638
http://www.ecienv.com
EPA ID#: OHD 083377010

OFFICE / LABORATORY
10163 Cincinnati-Dayton Rd.
Cincinnati, Ohio 45241
(513) 772-2818
Fax: (513) 782-8950
(800) 722-2818

September 6, 2013

Mr. Jae Lee
RCRA TSCA Program Section
Land & Chemicals Division
US EPA-Region 5
77 West Jackson Blvd.
Chicago, IL 60604-3590

**RE: LR-8J**

Dear Mr. Lee:

Environmental Enterprises, Inc. (EEI) is a RCRA Part B Facility that is permitted by the state of Ohio. Much of the information required by this PCB Renewal Application is already contained in the approved RCRA Part B Permit. Per your instructions, we are following 40 CFR 761.77 for issuance of combined permits.

Ohio is not an authorized state for the regulation of Polychlorinated Biphenyls, because of this the Closure Plan for the PCB Closure, it's Cost Estimate and Financial Assurance Mechanism have been set-up for the benefit of the US EPA Region 5 Administrator and not the Director of the Ohio EPA.

There are many common areas in the RCRA and TSCA permits for our facility. Both permits encompass the same buildings, procedures, inspections, waste analysis plans, location, flood maps, SPCC plans, and security provisions. Thus, this submittal is steered toward completing the information required under TSCA with the related closure and cost estimates.

The ownership and operator of the facility are identical to that submitted in the RCRA Part A Permit and the facility operates under the same Federal EPA ID # OHD083377010.

The Health and Safety, SPCC and HAZCOM Plans are not attached to the RCRA or TSCA applications; however they are current and available. The SPCC Plan includes the PCB storage area that was updated in June 2012, and is readily available for inspection.

I hope that this provides an overview of our direct approach for submittal of this application, because of the duplication of information in the previously approved RCRA Part B Application.

If you have any questions, comments or wish additional information on any topic, please do not hesitate to call either Melissa Joering or me at 513/541-1823.

Sincerely,
ENVIRONMENTAL ENTERPRISES, INC.

Daniel J. McCabe, P.E.
President

Enclosure: PCB Renewal Permit Application

## INTRODUCTION

Environmental Enterprises, Inc. (EEI) operates an ~~Interim~~ PART B PERMITTED 27,000 square feet hazardous waste treatment facility at 4650 Spring Grove Avenue, Cincinnati, Ohio. EEI also operates a contiguous property facility at 4600 Spring Grove Avenue, which until this time, only process non-hazardous wastes. EEI has constructed a PCB storage area within the facility at 4600 Spring Grove Avenue and permitted this facility as part of 4650 Spring Grove Avenue for the handling of hazardous wastes with the advent of the rules that took effect on September 29, 1190 for TC wastes.

Even though the PCB storage area is part of a RCRA permitted facility, EEI does not wish to exempt this area from TSCA storage approval requirements as permitted by 40CFR761.65 (d) (6). As such, EEI has prepared a separate closure plan for PCB's. The PCB closure plan will be funded by means of a trust fund ~~with a pa in period of three (3) years~~.

## FACILITY LOCATION

The facility is located in a heavy industrial area in north central Cincinnati, Ohio. The Mill Creek flows generally north to south approximately seventy-five feet (75') to the rear of the facility. The building does not lie in the ~~one~~ five hundred ~~(100)~~ (500) year flood plain of the Mill Creek. See Figures 1 and 2, and Attachments B and C. Also, the facility is not located along a fault or other active seismic zone. (See Figure 1, 1B and 2). The facility is secured by fencing, locked doors, CAMERAS, and natural barrier. All approaches are posted "Danger, Unauthorized Personnel Keep Out". See Figure 5 for fencing and gate locations.

The facility which contains the PCB storage area is constructed of portland cement floors, portland cement walls and painted concrete block walls. Surrounding soil consists of compacted clay and gravel. There are no sewers immediately adjacent to the property. The exterior is protected from spills by Portland cement curbs and ramps. There are no public or private drinking water wells within five (5) miles of the facility and these wells are located up gradient to the facility. Access to the facility is via four and five lane public roads, which are ALTERNATE ROUTES TO I-75 alternate routes. Access to the facility is obtained by exiting I-75 to Mitchell Avenue (exit 6); west on Mitchell Avenue to 2$^{nd}$ traffic light; left onto Spring Grove Avenue; approximately 0.5 mile to left into facility at traffic light at Winton Road. All access is via paved roadway. See Figure 5.

## BACKGROUND AND EXPERIENCE

Environmental Enterprises, Inc. (EEI) has operated the current RCRA facility since 1980 and has an exemplary compliance history. In the past ten (10) years, EEI has no proven violations. Recent years' PCB inspections have also shown no violations of TSCA regulations other than a missing sign, which had not been replaced after painting the storage area the week prior to the inspection.

EEI's RCRA facility provides treatment of numerous types of wastes and provides a full range of treatment options, which ~~currently~~ include blending, chemical oxidation, chemical reduction, fixation, neutralization, cyanide destruction, precipitation, ~~and~~,filtration, METAL RECOVERY, AND HYDROLYSIS.

EEI employs APPROXIMATLEY 170 people including ~~two (2) M.S. Chemists, seven (7) B.S. Chemists, two (2) Certified Industrial Hygienists~~, NUMEROUS CHEMISTS, ~~one (1) M.S.~~ Professional EngineerS, ~~two (2) B.S. Biologists, and several Associate Degreed~~, AND APPROXIMATELY 70 40-HOUR HAZWOPER TRAINED TECHNICIANS. Facility personnel average ~~three (3)~~ FIVE (5) years experience with the company and range from one (1) month to ~~sixteen (16)~~ TWENTY-FIVE (25) years overall experience. All personnel are thoroughly trained in RCRA compliance ~~including LDR rules most are also trained in~~ AND in PCB compliance. EEI operates ~~two (2) laboratories~~ AN ON-SITE LABORATORY THAT ~~One laboratory~~ serves as a Quality Assurance laboratory for the RCRA facility. ~~The other laboratory is certified by the Ohio Environmental Protection Agency and operates as a commercial laboratory. This main lab is located off-site at 10163 Cincinnati Dayton Road and is not part of this facility or application. This lab will continue to operate after closure of the facility as a commercial lab performing PCB analyses. It is not intended to be closed as part of the facility during facility closure.~~

EEI's laboratories are fully equipped with state of the art instrumentation for the identification and quantization of PCB's. EEI operates ~~four (4)~~ TWO (2) GC's and ~~two (2)~~ ONE (1) GC/MS's, all of which are capable of PCB analyses. ~~The main lab takes part in USEPA's quality assurance program to ensure accuracy of results. The lab quality assurance plan is enclosed.~~

## CORPORATE OWNERSHIP

EEI is a PRIVATELY HELD Ohio Corporation, incorporated in 1976. ~~EEI is a privately held corporation with Mr. Daniel McCabe and Mr. George McCabe as the principal stockholders. No other stockholders own more than five percent (5%) of the company.~~ EEI is an independent company ~~and~~ THAT is not owned or controlled by ~~any other~~ A parent corporation.

## KEY PERSONNEL

The following people have direct management responsibilities for the facility:

**Dan McCabe, P.E., President**
~~**Gary Davis, Vice President**~~
**Warren Taylor, Quality Assurance Director**
~~**Frank Vest, General Foreman**~~
~~**John Julius, Facility Manager**~~
~~**Norman Rowe, Foreman**~~
~~**Larry Gray, Foreman**~~
**MARTY JAMES, ACTING PLANT MANAGER**

**GARY BRUNNER, APPROVAL CHEMIST**
**MIKE YEARY, LABORATORY MANAGER**
**JOE MCCABE, MAINTEANCE MANAGER**
**JOE COMBS, LOGISTICS MANAGER**
**TOM MCCABE, ANNEX MANAGER**

Mr. McCabe attended the University of Cincinnati, majoring in Chemistry and has a Masters degree in Sanitary Engineering. Mr. McCabe is also a Registered Professional Engineer in Ohio, Indiana and Kentucky. Mr. McCabe's professional career included work for Systech as an Environmental Engineer where he performed a study for U.S. EPA, which in part became the basis for the standard method for characterization of hazardous wastes. Mr. McCabe has over ~~twenty-two (22)~~ FORTY (40) years experience in the environmental field.

~~Mr. Davis attended the University of Cincinnati, majoring in Chemistry and has twenty (20) years experience. In 1974, Mr. Davis started the Environmental Department at Hilton Davis Chemical. Hilton Davis is a large specialty chemical manufacturing company, which produced over thirteen hundred (1300) products from four thousand (4000) raw materials. Mr. Davis, established procedures for waste management, Air Pollution compliance, Water Pollution monitoring and Regulatory Affairs. Mr. Davis is a past member of the National Environmental Training Association and has received Certificates of Achievement from the National Solid Waste Management Association.~~

Warren Taylor attended Capital University, majoring in Biology and received a Masters of Environmental Science degree from Miami University in 1979. Mr. Taylor worked for Cecos International for several years as a Quality Assurance Manager at the Williamsburg, Ohio landfill and as a Remedial Action Specialist. Mr. Taylor has worked for EEI for ~~eight (8)~~ TWENTY-EIGHT (28) years as a Quality Assurance Director responsible for regulatory compliance regarding EEI's Analysis Plan and providing technical support for the ~~Viee~~ President as new rules become effective.

~~John Julius~~ MARTY JAMES is responsible for overall day to day operations of the facility. Mr. ~~Julius~~ JAMES has worked for EEI ~~one (1)~~ TWENTY (20) years and is familiar with all EEI's operating procedures including PCB's. ~~Prior to joining EEI, Mr. Julius worked for Republic Environmental for thirteen (13) years.~~

~~Larry Gray~~ TOM MCCABE is responsible for the portion of the facility, which is the subject of this application. Mr. ~~Gray~~ MCCABE has worked for EEI for ~~nine (9)~~ THIRTEEN (13) and is familiar with all EEI policies and procedures and has been trained regarding PCB Management.

None of the ~~above~~ KEY employees have been convicted of environmental violations or received civil penalties for environmental violations at EEI or any other facility. THE BCI UNIT HAS PERFORMED A BACKGROUND INVESTIGATION OF ALL KEY EMPLOYEES OF EEI AND HAS NO DISQUALIFYING CRIMES NOTED AS DEFINED UNDER HB 597. ~~EEI has been to court twice with Ohio EPA and in both cases EEI has been vindicated.~~

~~In 1986, EEI went to court with Ohio EPA regarding alleged violations of RCRA Ohio regulations dating back to 1982. The state presented its case, we made a motion for acquittal and all charges were dropped. Note that EEI did not say one word in our defense.~~

~~In 1987 EEI once again went to court regarding alleged violations of Ohio RCRA regulation in 1984, 1985 and 1986. One of the seventeen counts were dropped prior to trial. EEI prevailed on fourteen (14) of the remaining sixteen (16) items at trial and won the other two (2) on appeal. As a result of these trials, EEI has no proven RCRA violations in its fifteen (15) year history~~.

~~On August 28, 1989, a PCB inspection conducted by Ohio EPA revealed that EEI failed to mark the PCB storage area as required by 40CFR761.40(A) (10). At the time of the inspection EEI had just completed painting the area and a new PCB marking had not been posted. This violation was immediately corrected and no further corrective action was required~~.

~~On September 18, 1990, Ohio EPA conducted a PCB inspection which revealed that the 1989 annual document log did not cover the correct time period as required by 40CFR7761.180(A). We were notified of this violation on March 11, 1991. The documents were corrected and submitted on April 8, 1991~~.

~~EEI also owns another subsidiary company, Broco Environmental Incorporated (BEI) in Rialto California. This company operates as a commercial TSDF for RCRA and California hazardous wastes. BEI does not operate as a PCB commercial storer. BEI has not been convicted of any environmental violations or assess civil penalties for environmental violations since its incorporation in 1992~~.

## PCB STORAGE

EEI has constructed a separate PCB storage area in the facility at 4600 Spring Grove Avenue, which ~~will~~ includeS eight inch (8") high curbing and a flexible urethane coated/sealed concrete floor and walls. See product literature enclosed. (Attachment A) There are no drains, sewer lines, expansion joints, or other floor drains, etc., ~~with the exception of the restroom/shower area~~.

The PCB storage area is smooth SEALED concrete ~~and has a sealed floor~~ with a curb and ramp. ~~All other areas are also smooth concrete (Portland Cement) with a similar sealant applied~~. The walls which form part of the storage area to the west and north are sealed with the same sealant as the floor. The curb and ramps are also coated with this sealant. Above the PCB storage area, the building rises three (3) floors. Therefore, three (3) floors of concrete and a composite roof provide protection from the weather. Approximately thirty feet (30') east of the PCB storage area, a concrete block wall separates the PCB storage area from the remaining 400' of building.

The storage area measures 24' x 20' with a capacity of eighty (80) drums of oil and/or capacitors and four (4) 9.5 cubic feet transformers or their equivalent. All material will be stored in drums or crates OR NON PURVIOUS DOT COMPLIANT CONTAINERS. The facility is served by ~~three (3)~~ FIVE (5) loading docks (see figure 6). Only the dock at the northwest corner us used to load and unload PCB's from transport vehicles.

AN ~~minimum of~~ eight (8) inch high solid poured concrete curb forms the PCB storage area on the east side. A ten (10) foot concrete wall forms the west and north sides and a eight (8) inch concrete ramp forms the south side of the containment area. ~~Similar ramps are located at each door to the exterior~~.

The wall to the north is an exterior wall of the building, while the wall which forms the west side of the PCB storage area is an interior partition. The entire PCB area is within a concrete and concrete block building. See drawing enclosed (figure 6). The building continues for an addition 400 feet beyond the portion of the building represented in figure 6.

The building is a four (4) floor structure ~~plus~~ including a basement with concrete floors, and concrete block walls and ~~wooden deck~~ CONCRETE roof.

EEI occupies the entire building. The PCB storage area is located on the ground floor. See floor plan. (figure 6)

The flood insurance map for this area confirms that the facility is ~~just out of~~ NOT IN the 500-YEAR flood plain. However, this map does not take into account the Corps of Engineers has reconstructed the Mill Creek and lowered the one hundred (100) year flow rate. See the enclosed letter from the Corps of Engineers and exempt from our Part B application. (figures 1 and 2 and attachments b and c)

The loading docks are not used for the storage of PCB's. PCB containers and articles are removed from the transport vehicle and immediately placed in the storage area. Conversely, materials being shipped off-site are taken directly from the storage area to the transport vehicle. Therefore, these loading/unloading areas are not subject to 40CFR761.65 (b).

**HANDLING PROCEDURES**

All PCB wastes received for storage must first be approved by EEI's Quality Assurance Department by submitting a PCB Waste Profile prior to shipment. A copy of this PCB profile is included at Attachment D.

All PCB's received are tracked using an inventory tag system. A unique numbered tag is assigned to each drum or piece of equipment. A computerized log is then utilized to track inventory through the facility from receipt to shipment off-site for disposal. Shipments are based on earliest date of generation first. Certificates of Disposal are forwarded to the generator upon receipt from the disposal facility.

The following containers are used at the facility:

5 gallon DOT ~~35-65 (M-2074)~~ UN1H2
55 gallon DOT ~~17H and 17E~~ UN1A1 AND UN1A2
30 gallon DOT ~~17H and 17E~~ UN1A1 AND UN1A2
4'x4'x4' Wooden Crates
4'X4'X4' PORTABLE TANKS UN31HA

110 gallon recovery drum UN1A2 AND UN1H2
CUBIC YARD BOX UN11G/X/

Transformers ~~may be drained and flushed prior to shipment or~~ ARE shipped off-site as is. ~~Empty transformers are shipped off-site as is~~. No other PCB waste types are processed by EEI, i.e., consolidated, repacked, etc.

**CONTINGENCY PLAN**

All spills of PCB contaminated material are to be cleaned up immediately using a combination of sorbents and kerosene followed by an alkaline degreaser wash and rinse.

Decontamination is repeated until testing confirms a level of less than 10ug/100cm$^2$ on sealed concrete, or the concrete may be removed and disposed of via landfill. Leaking containers are to be overpacked in fifty-five (55) gallon, eighty-five (85) gallon or one hundred and ten (110) gallon recovery drums.

The PCB storage area is to be inspected daily for leaks, proper storage, aisle space, etc. All safety equipment is inspected weekly.

In the event of fire, the area ~~is sprinklered~~ HAS SPRINKLE HEADS and all water is to be contained within the storage area and collected for analysis and disposal. Small fires may be extinguished using dry chemical extinguishers available throughout the facility.

**CLOSURE PLAN**

(See Attachment F). This attachment will be included as an addendum to the RCRA facility plan as a separate section.

**MANIFESTING**

All shipments of PCB either received by EEI or shipped off-site by EEI use the national Uniform Manifest. This is the same shipping document used by RCRA. EEI has received confirmation of notification as a PCB waste handler as required in the December 21, 1989 rulemaking. This identification number is to be used as the EPA I.D. # on all shipments originated at EEI's facility. EEI will only accept PCB's from generators who indicate their I.D. # or the twelve (12) digit sequence "40 CFR Part 761". All transporters must also provide proof of notification of PCB activities. EEI's subsidiary, Midwest Environmental Transport (MET) has notified.

A unique identifying number for each container or piece of equipment must be indicated on the manifest. Also, the codes PCB1 or PCB2 as appropriate for PCB articles or PCB containers respectively are to be used in ~~column I~~ SECTION 13.

**RECORD KEEPING & REPORTING**

All manifest must be kept for a minimum of three (3) years after closure of the facility or three (3) years after the last acceptance of PCB's for storage.

An annual report shall be prepared each year which summarizes all PCB handling activities for the previous calendar year. This report is also to include the name, address and identification number of each generator and storage or disposal facility involved in the previous years activity. The dates of removal (out of service date) are also to be recorded.

A summary report shall be submitted to the Regional Administrator by July 15$^{th}$ each year.

# COMMERCIAL PCB STORAGE APPLICATION
# ENVIRONMENTAL ENTERPRISES, INC.
# 4650 Spring Grove Avenue
# Cincinnati, OH 45232
# 513/541-1823
# OHD 083377010

Environmental Enterprises, Inc. (EEI) does not wish to qualify for the exemption provided for in 40 CFR 761.65 (d) (6). A separate closure plan is included in the application funded by a separate Trust Fund held by Huntington Bank, which is separate from the RCRA Financial Assurance Mechanism.

As provided in 761.65 (g) (1) (i), as an existing facility, EEI has established and funded the attached Trust Agreement for Closure

The employees who are responsible for handling PCBs includes, Joe Combs, Marty James, Daniel McCabe, Tom McCabe, and Warren Taylor. Copies of current training records are attached for the listed employees.

The certifications required by 40 CFR 761.65 are attached.

A list of containers is attached to include 85-gallon and 110-gallon recovery drums, as well as totes.

An updated Flood Insurance Rate Map showing EEI marked as JZ0815, is attached.

The containment area has been reconstructed to provide 25 percent of the maximum inventory of PCB containers and PCB articles. The height of the ramps and curbs has been raised to 8". Enclosed drawings and calculations have been updated to reflect the change.

The building is a four (4) story building with concrete floors between each floor and a concrete roof, which was redone in 2010. The roof is a roof with drains. It is obvious that no rain will enter through the roof and penetrate three (3) concrete floors. The building itself is concrete and concrete block on all sides. Again, no rain can ~~possibly~~ enter the building through the walls.

The building description has been updated to include construction features.

A sampling plan has been prepared and included as to the application. Samples will be taken quarterly from five sampling areas outside the curbed storage area, i.e. the lunch room floor, dock and etc. This plan also includes steps to be taken in response to positive results >10 ug/100 $cm^2$.

A topographic map has been included showing five foot (5') contour intervals at a scale of 1"=200'.

Access to the facility is via four and five lane public roads, which are I-75 to Mitchell Avenue (Exit 6); west on Mitchell are to 2nd traffic lights; left onto Spring Grove Avenue; approximately 0.5 miles to the left into the facility a traffic light at Winton Road. All access is via paved roadway. This description has been added to the facility location. A new "Figure 5" has been enclosed showing traffic flow inside the facility. Also, see 2 and 3. Spring Grove Avenue is an alternate to I-75 and is accustomed to heavy truck traffic

Site drawings

Closure Plan

Updated off-site disposal list

Sampling Methods of the Closure Plan. In addition, core samples shall be taken of the floor of the PCB storage area, floor leading from the dock to the storage area, and areas D & E of the parking lot. One core sample shall be taken from each 8x8 or 64 sq. ft. or thirty (30) samples of floor space using a grid, and one core sample from areas D & E. The walls of the storage area are sealed and do not require core sampling.

The maximum inventory will be 80 x 55 gallon drums and 4 x 9.5 cubic feet transformers. Total gallons at the time of closure will therefore be:

| | |
|---|---|
| 80 x 55 | = 4,400 gallons |
| 4 x 9.5 x 7.48 | = 248 gallons |
| TOTAL | = 4,684 gallons |

See containment calculations.

A Safety Plan has been included. See Section G in the RCRA Part B Permit.

A written inspection schedule is included in the contingency plan section. Copies of notification to local authorities are included as an appendix to the Safety Plan. Examples of training documentation are also included as an appendix to the Safety Plan.

QA/QC program for sampling and decontamination.

The only equipment used at the facility employed for daily operation of PCB wastes is a forklift. This forklift will be sampled and decontaminated as other contaminated items described in the closure plan.

A new drawing shows the samples locations.

The entire PCB storage area is inside a building made of concrete. Curbs and ramps prevent migration outside the building. It is therefore, logical to conclude that there is no need to sample surface or groundwater, unless we illogically assume that PCB's some how will penetrate more than 16" of concrete (through two floors) and enter the soil and groundwater. There is a floor under the PCB storage area that is covered under our RCRA Permit. Its floor is concrete as well.

The facility is secured by fencing, locked doors and natural barrier. All approaches are posted "DANGER, UNAUTHORIZED PERSONNEL KEEP OUT"

The discussion section of the Closure Plan, describes all removal and transfer methods of disposal including oils, capacitors and transformers. The Cost Estimate assumes worst case costs, i.e., incineration for oil and capacitors and decommissioning and landfill for transformers. This has been added to the Cost Estimate. See page F10 through F14.

These costs would be included in the costs presented for debris. The on-site lab is not intended to be closed as part of the PCB facility. The lab will be closed as part of the RCRA facility closure, which would continue in operation after closure of the PCB facility.

Proof of financial assurance will be provided upon notification of EPA's conditional approval as provided in 761.65 (g) (1) (i). This mechanism will be in compliance with part 761.65 (g) as to wording, certification, etc.

There has been no change in violation of status occurrences in the last five (5) years. There are no pending cases associated with any businesses with which the principles are or have been associated.

# COMMERCIAL PCB STORAGE RENEWAL APPLICATION

**ENVIRONMENTAL ENTERPRISES, INC.**
**4650 Spring Grove Avenue**
**Cincinnati, OH 45232**
**513/541-1823**
**OHD 083377010**

## PCB STORAGE CAPACITY

The containment area has been constructed to provide containment for 25 percent of the maximum inventory of PCB containers and articles. The height of the ramps and curbs are 8".

The building is a four (4) story building with concrete floors and a concrete roof, which was replaced in 2010. The roof contains stormwater drains. It is very unlikely that precipitation would enter through the roof and penetrate three (3) concrete floors to the ground level PCB storage area. The building has concrete, brick walls and glass block on all sides. No rain is able to enter the building through the walls.

## INVENTORY

The maximum inventory is 80 x 55 gallon drums and 4 x 9.5 cubic feet transformers. The maximum gallons at the time of closure could be:

| | |
|---|---|
| 80 x 55 | = 4,400 gallons |
| 4 x 9.5 x 7.48 | = 248 gallons |
| **TOTAL** | **= 4,684 gallons** |

## TYPES OF PCB'S FOR STORAGE

The type of PCB's EEI accepts are capacitors, ballasts, oil, contaminated soils, debris, paint, solvents, and transformers.

The types of containers EEI receives containing PCB's include; 55-gallon, 85-gallon and 110-gallon drums (UN1A1 and UN1A2), pails (1H2), and totes, which are used for storage.

## RCRA INFORMATION

A copy of the letter from EPA confirming our EPA Identification Number for the facility is attached.

The personnel contact list for PCB storage is contained in the RCRA Contingency Plan in Section G.

The point of contact for Environmental Enterprises, Inc. (EEI) is Daniel J. McCabe, P.E. President at 513/541-1823. The employees who are responsible for handling PCBs include Joe Combs, Marty James, Daniel McCabe, Tom McCabe, and Warren Taylor. Copies of the current training records for these individuals are attached.

A topographic map for the facility is contained in the RCRA Permit Section B.2, which shows five foot (5') contour intervals at a scale of 1"=200'.

## FACILITY ACCESS AND FACILITY ROADWAY SURFACES

Access to the facility is via four and five lane public roads, from I-75 to Mitchell Avenue (Exit 6); west on Mitchell to the 2nd traffic light and; left onto Spring Grove Avenue. The facility is accessed by a left turn lane at the traffic signal at Winton Road. All access is via paved roadway. Spring Grove Avenue is an alternate to I-75 and is accustomed to heavy truck traffic. The facility parking and interior access has been completely paved with road grade asphalt. See the attached Traffic Flow map.

## RECORD KEEPING AND REPORTING

EEI has received confirmation of notification as a PCB waste handler and has been assigned the same EPA ID# that is used for hazardous waste activities.

EEI maintains a computerized PCB inventory record within the operating log of the facility. This log contains information relative to the receipt, storage and of PCB's. The operating log for PCB's is similar to the RCRA operating log contained in the RCRA permit in Section C-3.

A PCB bar code is printed for each container. Each PCB bar code is uniquely numbered and contains the following information:

-Inventory Number
-Date Received
-Generator
-Serial Number
-Marked for Article or Container

An annual report will be prepared each year, which summarizes all PCB handling activities for the previous year. This report will include the name, address, identification number, storage date, and facility shipped to in the previous year.

All records, including the annual report, operating log, and certificates of disposal shall be maintained for either 3-years after the facility has closed or stopped taking PCB's.

## CLOSURE PLAN

Environmental Enterprises, Inc. (EEI) does not wish to qualify for the exemption provided for in 40 CFR 761.65 (d) (6). The TSCA Closure Plan is attached with a separate Trust Fund held by HUNTINGTON BANK, which is funded by a Letter of Credit which is separate from the RCRA Financial Assurance Mechanism for closure.

As provided in 761.65 (g) (1) (i), as an existing facility, EEI has established and funded the attached Trust Agreement for Closure.

## FINANCIAL RESPONSIBILITY

Proof of financial assurance as outlined in CFR761.65 (g) (1) (i) is met by the Trust Agreement and a current Closure Plan Cost Estimate based upon 2012 costs, a current Certificate of Insurance for US EPA and a Letter of Credit.

The Closure Plan provides for the removal and disposal of all oils, capacitors and transformers. The Cost Estimate assumes worst case costs, i.e., incineration for oil and capacitors and decommissioning and landfill for transformers.

The on-site lab is not intended to be closed as part of the PCB facility. The lab will be closed as part of the RCRA facility closure, which would continue in operation after closure of the PCB facility.

## CERTIFICATIONS

The certifications required by 40 CFR 761.65 (b), (c), and (f) are attached.

The certification that the person who owns or operates the facility is aware of and will adhere to the PCB reporting and record keeping requirements in subparts J and K is attached.

# STATEMENT OF POLICY

Environmental Enterprises, Inc. (EEI) has closed its main analytical laboratory and uses Test America for all off-site compliance related analysis. The Test America Laboratory is a state and NELAC certified laboratory, which will use their then current waste analysis methodology and standard EPA methods that will be in use in 2029.

The current Quality Assurance Manual (QA/QC) for Test America is attached.

# FLOOD PLAIN INFORMATION

An updated Flood Insurance Rate Map showing EEI marked as JZ0815, is attached. This information supersedes that contained in the RCRA Permit application. The building does not lie in the one hundred (100) year or five hundred (500) year flood plain of the Mill Creek.

*Note: This map was last updated February 16, 2012.*

# INSPECTIONS AND TRAINING

Inspections are done of the PCB area, which comply with TSCA, RCRA and SPCC Inspection Requirements.

A written inspection schedule is included in the Contingency Plan Section F of the RCRA Permit. Copies of notifications to local authorities are included in the RCRA Permit as Attachment G-2. Training documentation is included in Section H of the RCRA Permit that meets RCRA, TSCA and SPCC requirements.

# QUARTERLY SAMPLING PLAN & PROCEDURES

This PCB monitoring sampling plan involves sampling quarterly from five sampling areas outside the curbed PCB storage area, i.e. the lunch room floor and dock. This plan also includes steps to be taken in response to positive results >10 ug/100 $cm^2$. The walls of the storage area are sealed and do not require core sampling.

The only equipment used at the facility employed for daily operation of PCB wastes is a forklift. This forklift will be sampled and decontaminated as other contaminated items as described in the closure plan and response to spills.

## SECURITY

The facility is secured by fencing, locked doors and natural barrier. All approaches are posted "DANGER, UNAUTHORIZED PERSONNEL KEEP OUT". Access is by keypad at all entrances from Spring Grove Avenue. Unauthorized vehicular access is prevented by locked gates at the east, center and west gates from Spring Grove Avenue.

*Note: PCB identifying labels have been affixed to the access doors, adjacent pillars and walls of the PCB storage area.*

## FACILITY LOCATION

The facility is located in a heavy industrial area within Cincinnati, Ohio. The Mill Creek flows generally north to south and is within 270' at its closest point to the PCB storage area. The facility is secured by fencing, locked doors, cameras, and a natural barrier. All approaches are posted "Danger, Unauthorized Personnel Keep Out".

The facility which contains the PCB storage area is constructed of Portland cement floors, Portland cement walls and painted concrete block walls and was sealed with urethane. There are no in plant drains in or adjacent to the PCB storage area. The exterior is protected from spills by Portland cement curbs and ramps. There are no public or private drinking water wells within five (5) miles of the facility and these wells are located up gradient from the facility.

The address for the TSCA Storage Area is 4600 Spring Grove Avenue. The US EPA has determined that 4600 Spring Grove Avenue is contiguous property to 4650 Spring Grove Avenue, and both are included in the US EPA ID number OHD 083 377 010. The original assignment of this EPA ID number is attached.

## SEISMIC ZONE INFORMATION

The facility is not located along a Fault or active Seismic Zone.

## PUBLIC RELATIONS

The Public Relations between EEI and the community are very favorable. EEI faces no public opposition to our continued operation. We have been involved in this community since the late 1970's and have developed a working relationship with the Spring Grove Village Community Council (*formerly, Winton Place*). We support the Village on their Spring and Fall cleanups and function as the permanent Household Hazardous Waste collection center for Hamilton and Butler Counties. EEI also allowed the use of our building to paint a mural of the Past, Present and Future of the Spring Grove Village at the request of the community.

The public hearing on the original issuance of the Part B was not attended by anyone from the public and no public comment was received. The public hearing for the Part B Permit renewal in 2009 was attended by only four people and none of the comments received were negative or opposed the issuance of the Part B Permit. Recently, EEI processed two Class 2 Modifications adding volume and an expansion of storage areas on our RCRA Part B Permit and no one attended from the public.

The community has an active environmental group which has not lodged any complaints against EEI. EEI is a welcome member of the local business community.

## ENVIRONMENTAL JUSTICE

The major Environmental Justice concern was that waste management facilities were being located close to economically disadvantaged and black communities. While this may have been true for some areas of the country, this was definitely not the case with EEI. EEI located to its present site in the late 1970's because it was the only site in Cincinnati that would store "red label" or flammable materials. The old Formica complex met the building and zoning codes for management of this type of material. The selection of this location was not based on race or economic issues. Dan McCabe made the decision to locate here based on the types of materials that needed to be stored. No other facilities were available that met the necessary criteria.

The Environmental Justice concern originally surfaced up in the 1990's. This was an issue for everyone in the 45232 zip code due to the presence of a municipal solid waste landfill (ELDA), a construction and demolition landfill (The Grey Road Landfill), and numerous manufacturing industries located in the Mill Creek Valley corridor. The area in which we are located contains the Mill Creek, the Mill Creek Expressway (I-75) and is in an industrial corridor that reaches from the Ohio River to the GE Aircraft Engine Plant in Evendale just south of I-275.

This permit renewal does not appear to have significant public health or environmental impact. Nevertheless, EEI will inform the public of this permit renewal by issuance of a public notice in the Cincinnati Enquirer and by a meeting with the Spring Grove Community Council to explain the permit process and help their understanding and knowledge of this permit renewal.

EEI proposes to develop a fact sheet that would explain what is proposed and present it during the community meeting.

## ENVIRONMENTAL VIOLATIONS

On December 28, 2012, EEI had an explosion and fire at the facility while processing sodium chlorate filters which reacted. The combination of sodium chlorate or cellulosic filters has explosive properties, which were not stated on the profile.

The reaction of this incompatible mixture was an intense fire, which was extinguished but did not cause a release to the environment. The Contingency Plan and fire suppression systems functioned as designed. As a result of this occurrence, Ohio EPA cited EEI for administrative

deficiencies with respect to training, updating procedures and an annual recertification of profiles. All of which have been addressed at this time.

## BACKGROUND AND EXPERIENCE

Environmental Enterprises, Inc. (EEI) has operated the current RCRA facility since 1979 and has an exemplary compliance history. In the past ten (10) years, EEI has no proven violations. Recent PCB inspections have no violations of TSCA regulations.

EEI's RCRA facility provides treatment of numerous types of wastes and provides a full range of treatment options, which include blending, chemical oxidation, chemical reduction, fixation, neutralization, cyanide destruction, precipitation, filtration, metal recovery, and hydrolysis.

EEI employs approximately 170 people including numerous chemists, Professional Engineers, and approximately 70 40-Hour HAZWOPER trained technicians. Facility personnel average five (5) years experience with the company and range from one (1) month to twenty-five (25) years overall experience. All personnel are thoroughly trained in RCRA compliance and in PCB compliance. EEI operates an on-site laboratory that serves as a Quality Assurance laboratory for the RCRA facility.

EEI's laboratory is fully equipped with state of the art instrumentation for the identification and quantization of PCB's. EEI operates two (2) GC's and one (1) GC/MS's, all of which are capable of PCB analyses.

## KEY PERSONNEL

The following people have direct management responsibilities for the facility:

| | |
|---|---|
| **DANIEL J. MCCABE, P.E.** | **PRESIDENT** |
| **WARREN TAYLOR** | **QUALITY ASSURANCE DIRECTOR** |
| **MARTY JAMES** | **ACTING PLANT MANAGER** |
| **GARY BRUNNER** | **APPROVAL CHEMIST** |
| **MIKE YEARY** | **LABORATORY MANAGER** |
| **JOE MCCABE** | **MAINTEANCE MANAGER** |
| **JOE COMBS** | **LOGISTICS MANAGER** |
| **TOM MCCABE** | **ANNEX MANAGER** |
| **MELISSA JOERING** | **PLANT OFFICE MANAGER** |

Mr. McCabe attended the University of Cincinnati, majoring in Chemistry and has a Masters degree in Sanitary Engineering. Mr. McCabe is a Registered Professional Engineer in Ohio, Indiana and Kentucky. Mr. McCabe's professional career included work for US EPA and

Systech as an Environmental Engineer. Mr. McCabe has over forty (40) years experience in the environmental field.

Warren Taylor attended Capital University, majoring in Biology and received a Masters of Environmental Science degree from Miami University in 1979. Mr. Taylor worked for Cecos International for several years as a Quality Assurance Manager at the Williamsburg, Ohio landfill and as a Remedial Action Specialist. Mr. Taylor has worked for EEI for twenty-six (26) years as a Quality Assurance Director responsible for regulatory compliance regarding EEI's Analysis Plan and providing technical support for the President as new rules become effective.

Marty James is responsible for overall day to day operations of the facility. Mr. James has worked for EEI twenty (20) years and is familiar with all EEI's operating procedures including PCB's.

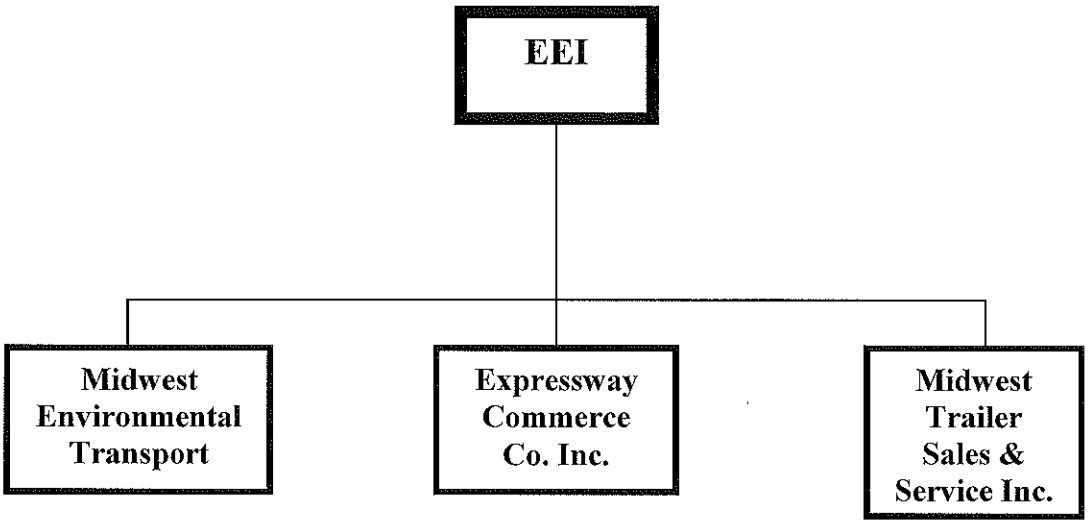
Tom McCabe is responsible for the portion of the facility, which is the subject of this application. Mr. McCabe has worked for EEI for thirteen (13) years and is familiar with all EEI policies and procedures and has been trained regarding PCB Management.

None of the key employees have been convicted of environmental violations or received civil penalties for environmental violations at EEI or any other facility. The Ohio Bureau of Criminal Investigation Unit has performed a background investigation of all key employees of EEI and has not uncovered disqualifying crimes for any key employee.

## CORPORATE OWNERSHIP AND AFFILIATED COMPANIES

EEI is a privately held Ohio Corporation, incorporated in 1976. EEI is an independent company that is not owned or controlled by a parent corporation.

EEI has three (3) wholly owned subsidiaries, Midwest Environmental Transport (MET), which serves as a hazardous waste and PCB transporter. The Expressway Commerce Company holds title to the Spring Grove Avenue facility. Midwest Trailer Sales and Services (MTSS) is a dormant corporation, which performed maintenance work on heavy trucks and trailers.




## PCB STORAGE

EEI has constructed a separate PCB storage area at 4600 Spring Grove Avenue, which includes eight inch (8") high curbing and a flexible urethane coated/sealed concrete floor and walls. See product literature in the RCRA Permit as Attachment D-11. There are no drains, sewer lines, expansion joints, or other floor drains, etc.

The PCB storage area is a smooth sealed concrete with spill containment curbs and ramp. The walls which form part of the storage area to the west and north are sealed with the same sealant as the floor. The curb and ramps are also coated with this sealant. Above the PCB storage area, the building raises three (3) floors; three (3) floors of concrete and a composite roof provide protection from the weather. Approximately thirty feet (30') east of the PCB storage area, a concrete block wall separates the PCB storage area from the remaining building.

The storage area measures 24' x 20' with a capacity of eighty (80) drums of oil and/or capacitors and four (4) 9.5 cubic feet transformers or their equivalent. All material is stored in drums or crates or DOT compliant containers. The facility is served by seven (7) loading docks. Only the dock at the northwest corner is used to load and unload PCB's from transport vehicles.

A minimum of eight (8) inch high solid poured concrete curb forms the PCB storage area on the east side. A ten (10) foot concrete wall forms the west and north sides and a eight (8) inch concrete ramp forms the south side of the containment area.

The wall to the north is an exterior wall of the building, while the wall which forms the west side of the PCB storage area is an interior partition. The entire PCB area is within a concrete and concrete block building.

The building is a four (4) floor structure including a basement with concrete floors, and concrete block walls and concrete roof.

EEI occupies the entire building. The PCB storage area is located on the ground floor. See map B-8 in the RCRA Permit.

The loading docks are not used for the storage of PCB's. PCB containers and articles are removed from the transport vehicle and placed in the storage area. Conversely, materials being shipped off-site are taken directly from the storage area to the transport vehicle. Therefore, these loading/unloading areas are not subject to 40CFR761.65 (b).

## HANDLING PROCEDURES

All PCB wastes received for storage must first be approved by EEI's Quality Assurance Department by submitting a PCB Waste Profile prior to shipment. A copy of this PCB profile is included in the Waste Analysis Plan in the RCRA Permit.

All PCB's received are tracked using bar codes. A unique bar code is assigned to each drum or piece of equipment. A computerized log is then utilized to track inventory through the facility from receipt to shipment off-site for disposal. Shipments are based on earliest date of generation first. Certificates of Disposal are forwarded to the generator upon receipt from the disposal facility.

The following containers are used at the facility:

5 gallon DOT UN1H2
55 gallon DOT UN1A1 AND UN1A2
30 gallon DOT UN1A1 AND UN1A2
4'x4'x4' Wooden Crates
4'X4'X4' Portable Tanks UN31HA
85 gallon recovery drum UN1A2 AND UN1H2
110 gallon recovery drum UN1A2 AND UN1H2
Cubic Yard Box UN11G/X/

## CONTINGENCY PLAN

All spills of PCB contaminated material are to be cleaned up immediately using a combination of sorbents and kerosene followed by an alkaline degreaser wash and rinse.

Decontamination is repeated until testing confirms a level of less than 10ug/100cm$^2$ on sealed concrete, or the concrete may be removed and disposed of via landfill. Leaking containers are to be overpacked in fifty-five (55) gallon, eighty-five (85) gallon or one hundred and ten (110) gallon recovery drums.

The PCB storage area is to be inspected daily for leaks, proper storage, aisle space, etc. All safety equipment is inspected weekly.

In the event of a fire, the area has a sprinkler system with a central station alarm and all water is contained within the storage area and collected for analysis and disposal. Small fires may be extinguished using dry chemical extinguishers available throughout the facility. The RCRA Contingency Plan includes the TSCA storage area and is contained in Section G of the Permit Application.

**ATTACHMENT I**

The operation of Environmental Enterprises, Inc. (EEI) 4600 – 4650 Spring Grove Avenue Facility is in compliance with the requirements of 761.65 (b) and (c).

Under civil and criminal pentalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.

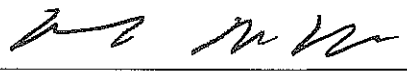
*Daniel J. McCabe, President*

**ATTACHMENT I1**

## APPLICATION CERTIFICATION STATEMENT

The plan submitted by Environmental Enterprises, Inc. (EEI) a Commercial PCB Storage facility is true, accurate and complete to the best of our knowledge.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.



***Daniel J. McCabe, President***

## STATEMENT OF POLICY

ENVIRONMENTAL ENTERPRISES, INC. (EEI) HAS CLOSED ITS MAIN ANALYTICAL LABORATORY AND USES TEST AMERICA FOR ALL OFF-SITE ANALYSIS. THE TEST AMERICA LABORATORY IS A STATE CERTIFIED LABORATORY, WHICH WILL USE THEIR THEN CURRENT WASTE ANALYSIS METHODOLOGY AND STANDARD EPA METHODS THAT WILL BE USED IN 2029.

## SAMPLING PLAN FOR MONITORING SURFACE CONTAMINATION OUTSIDE OF CURBED PCB STORAGE AREA

### PURPOSE

This sampling plan is developed to measure PCB surface contamination outside of curbed storage area on a routine basis. Results will be compared with the US EPA cleanup standard of 10ug/100cm$^2$ for a wipe sample. In the event that any measurement exceeds this ~~criterion~~ CRITERIA, ~~an~~ THE action plan for ~~correction~~ REMEDIATION is to be implemented.

### SAMPLING LOCATIONS

Both vertical and horizontal surfaces will be tested. The locations are selected to include those areas most likely to become contaminated by PCB's inadvertently carried from the curbed work area. The locations selected are:

1. ~~Floor area outside of curb where technicians enter/exit the curb~~ THE FLOOR AREA IN FRONT OF THE CURBED ACCESS RAMP TO THE PCB STORAGE AREA;
2. ~~Floor area inside the lunch room near the foremen's office, where visitors and company administrators enter/exit~~ THE FLOOR AREA INSIDE THE BERMED PCB STORAGE AREA BETWEEN THE STORAGE ROWS;
3. THE floor of the locker room;
4. ~~Locker room wash sink;~~
5. ~~Lunch room table;~~
6. 4. THE fork lifts used to move materials shall also be sampled for contamination. One (1) sample from the forks of ~~each~~ THE ANNEX fork lift shall be sampled ~~as above.~~

### SAMPLING PROCEDURES

1. Equipment, Supplies and Sampling Procedures

   It is important that every sample be collected in the same way. The procedure should follow that described in Appendix A, "PCB Wipe Test Sampling Protocol."

2. Action on Results

a. Test results ~~of~~ less than 10ug/100cm$^2$ are acceptable and no action IS required.

b. Any test results equal or higher than ~~the standards of~~ 10ug/100cm$^2$ will require the following actions:

1. The entire area will be decontaminated and retested.
2. If the results still exceed the standards, the recleaning and retesting will be repeaqted until the surface levels are less than standard set for each sampling location.
3. The Facility Manager will investiage to determine possible causes for the contamination and take appropriate action to prevent recurrence.

3. Frequency of Wipe Sampling

a. All locations will be sampled once per month.

# SECTION F
# PROCEDURES TO PREVENT HAZARDS

## F.1 SECURITY

### F.1a Security Procedures and Equipment

EEI does not request a waiver to security procedures and equipment. EEI has a 24-hour surveillance system, barriers, and means to control entry.

In addition to these, EEI has general security provisions such as ample lighting inside and outside the facility, an internal/external telephone system with paging abilities throughout the facility, and air horns in high hazard areas.

#### F.1a(1) Twenty-Four Hour Surveillance System

This facility is protected by a combined intrusion and fire alarm system, which is currently monitored by Mills Security, 365 days per year, 24-hours per day. External doors are either protected by a magnetic switch or by an infra-red beam. Monitoring for fires is accomplished via a sprinkler riser flow switch and smoke detectors. In the event of an alarm, the on-site system informs Mill's central station of the intrusion, sprinkler flow or smoke detection. The central station then notifies the proper authorities and EEI emergency coordinators.

Since EEI has the potential to operate 24 hours per day, 7 days per week, intrusion alarm monitoring is only needed on weekends or other off hours such as holidays. Off hours are typically from 1:00 a.m. Saturday to 11:30 p.m. Sunday. Periodically, operations are conducted on Saturday or Sunday such as HHW collection, shredding and chemical treatment in Tanks 1 and 2. These operations are usually conducted during the 7:00 a.m. to 4:00 p.m. shift. Based upon volume of business and season, selected work may proceed 24 hours per day, 7 days per week. Entrance to employees is also monitored by the system during "off" hours. Each employee has been assigned a code number, which must be called into the alarm company during off-hours. The alarm company logs in and out each employee during off hours.

The combined intrusion and fire alarm system is self-monitoring for problems. Malfunctions of magnetic switches, infra-red beams, or smoke detectors are displayed on a control panel.

#### F.1a(2)(a) Barrier

Outside areas of the facility are enclosed by a seven foot high chain-link fence with gates. These gates are kept closed except when moving vehicles through the facility.

### F.1a(2)(b) Means to Control Entry

The security measures to control access into the facility include fences, gates with warning signs, exit doors, which can only be opened from within the facility, and signs to direct visitors to the front door on Spring Grove Avenue, which is manned by a receptionist during hours of operation or locked. In addition to the front office entrance on Spring Grove Avenue, there are the west, central, and east gates on Spring Grove Avenue (see Figure B-10). Passenger vehicles enter through the west gate which is automated with key pad security access control. The visitors then follow signs to the front door and receptionist.

Signs are located at the Annex entrance to direct visitors to the receptionist at the Main Building. The Annex doors at the street are kept closed.

In general, trucks enter the truck parking area via the west entrance off Spring Grove Avenue. The driver then proceeds to the front of the Main Building and to the Quality Assurance (QA) Department for processing of the paperwork. An EEI employee then moves the truck with EEI's facility yard truck to the appropriate unloading area behind the Annex or Main Building. These movements are controlled by EEI personnel. The west gate automatically closes after entry of vehicle. Some tanker vehicles also enter the facility through the east gate, which is normally closed and locked, off of Spring Grove Avenue. The gate is opened by facility personnel to allow the vehicle to enter and park.

### F.1a(3) Warming Signs

Signs which are legible from 25 feet are posted at fence gates and all exterior doors. These signs are visible from all angles of approach and bear the words "Danger - Unauthorized Personnel Keep Out". Also, no smoking signs are posted on the fences and in container storage areas.

### F.1b Waiver

EEI does not request a waiver of the requirements stated in OAC 3745-54-14 regarding injury to intruder and violation by intruder.

## F.2 INSPECTION SCHEDULE

EEI conducts regular inspections of the general site, monitoring equipment, safety and emergency equipment, security devices, operating equipment, structural deterioration, and discharges that could cause or lead to the release of hazardous waste constituents and adversely affect the environment or threaten human health. The inspection program is intended to provide an early warning of the potential for such events, so that corrective and prevention actions may be taken in a timely manner. The inspection program includes a schedule for inspections (see Table F-1), inspections forms (see Attachment F-1), trained

personnel to conduct inspections, and a system that remedies problems identified in the inspections. A copy of the inspection schedule and inspection forms are available at the site at all times as part of the facility operating record.

### F.2a General Inspection Requirements

Table F-1 presents an inspection schedule for monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment. The table also includes the types of problems that may be encountered, and the frequency of inspections. Inspection forms for these items are presented in Attachment F-1. Weekly inspection of the perimeter fence, gates and security system will be conducted and information recorded on the weekly inspection form found in Attachment F-1. The inspection will be a visual inspection to determine the perimeter fence integrity, assessing for breaks and/or structural damage. Visual inspection for proper signage and proper operation of automatic gate and inspection of manual gates for integrity and security. proper operation of security systems is confirmed by visual inspection of control panel to ascertain status of operation and to assure that systems are not in default. Inspection results will be recorded on weekly inspection form and retained in records as required.

### F.2b Specific Hazardous Waste Management Unit Inspections

Table F-1 presents items to be inspected, types of problems that may be encountered, and the frequency of inspection for each hazardous waste management unit (i.e. container storage areas, tanks, and miscellaneous units). The first shift foreman or designee is responsible for conducting inspections of the hazardous waste management units.

Typical problems encountered during inspections, are provided on the inspection form to serve as a reminder to the inspector and to ensure a complete inspection. Regardless of the regulation status (whether the hazardous waste management unit is in or out of regulatory compliance), observations are made as to the number of containers, aisle space, height of container stacking, inventory quantities, pallet condition and storage tank levels. If the status of a particular item is unacceptable, appropriate and complete information is recorded, including date and nature of repairs and remedial action.

#### F.2b(1) Container Inspection

Inspections of containers and their storage areas in the Main Building and the Annex will be conducted daily Monday through Friday, as indicated on Table F-1. Results of each inspection will be recorded on the inspection forms (see Attachment F-1). Information requested on these forms includes the inspector's name, date and time of inspection, item of inspection, typical problems encountered, status of the item, observations (including leaks,

spills, and any deterioration of containers or their secondary containment system), and the date and nature of repair and remedial action.

### F.2b(2) Tank Inspection

Inspections of tank systems and their secondary containment will be conducted per the inspection schedule provided on Table F-1. Results of each inspection will be recorded on the inspection forms (see Attachment F-1). Inspections will include less than 90-day generator storage areas. Specific items to be inspected are discussed below.

#### F.2b(2)(a) Tank System External Corrosion and Releases

As indicated on Table F-1, tank systems are inspected daily for external corrosion or releases to the environment.

#### F.2b(2)(b) Tank System Construction Materials and Surrounding Area

As indicated on Table F-1, the surrounding area and secondary containment area for the tank systems is inspected daily for signs of erosion, deterioration, cracks, or releases.

#### F.2b(2)(c) Tank System Overfilling Control Equipment

Overfilling is prevented by continuous monitoring of the tanks system during all stages of operation. These tank systems are batch operated and materials are added in small quantities (up to 110 gallons at one time from containers and 5,000-gallon tankers are typically unloaded in two batches). There are no automatic transfer operations which may overfill a tank. Two feet of freeboard is maintained at all times in Tanks #1, #2, and #3 to prevent overflow. The freeboard is inspected daily. The high level alarm on Tank #3 and the sight tube on Tank #4 are inspected daily.

#### F.2b(2)(d) Tank System Monitoring and Leak Detection Equipment

Temperature and pH monitoring equipments on Tanks #1 and 2 are inspected daily and calibrated weekly, as indicated on Table F-1. The high level alarm and the level indicator for Tanks #3 and #4, respectively, are also inspected daily. EEI's tank systems are not equipped with leak detection equipment but are inspected daily for leaks.

### F.2b(2)(e) Tank System Cathodic Protection

EEI's tank systems are not equipped with cathodic protection systems.

### F.2b(3) to F.2b(7)

EEI does not operate any waste piles, surface impoundments, incinerators or landfills, and is not a land treatment facility for hazardous wastes.

### F.2b(8) Miscellaneous Unit Inspections

The inspection schedule and items to be inspected for the shredder are included on Table F-1. Shredder #1 is inspected daily for proper operation of ventilation screens and fans, lower explosion limit (LEL) monitor, leaks, and corrosion. The secondary containment for this unit will be inspected daily for cracks, gaps, damage, and erosion.

## F.2c Remedial Action

If inspections reveal that non-emergency maintenance is needed, they will be completed as soon as possible to preclude further damage and reduce the need for emergency repairs. If inspection reveals a breach in curb or berms, temporary containment will be employed and breach repaired as soon as practical, weather permitting. If inspection reveals a leaking container, that container is immediately abated either by processing or overpacking. If inspection reveals improper aisle space issue, that issue is abated immediately. If inspection reveals a container stacking and/or stability issue that issue is abated immediately. If inspection reveals issue with roll-off tarps damage that tarp is abated/repaired immediately. If inspection reveals damaged pallet the pallet is repaired or replaced within 24 hours of inspection. If inspection reveals piping or flange leak, the leak is immediately contained and abated or the line is placed out of service. If inspection reveals an issue requiring maintenance, maintenance is scheduled and completed based upon availability of repair components. (monitoring instruments such as pH and ORP are supplemented with temporary redundant instruments). If a hazard is imminent or has occurred between inspections, remedial action will be taken immediately. If necessary, EEI's personnel will notify the appropriate authorities per the Contingency Plan (see Section G) and initiate remedial actions. In the event of an emergency involving the release of hazardous constituents to the environment, efforts will be directed towards containing the hazard, removing it, and subsequently decontaminating the affected area in accordance with the Contingency Plan.

### F.2d Inspection Log

An inspection log is maintained for each calendar year in a three ring binder or in files in the foreman's office. After an inspection, each inspection form is filed in the binder. The inspection log notebook is always kept with the inspection schedule in the foreman's office. As required, records of inspections are kept for at least three years from the date of inspection.

## F.3 PREPAREDNESS AND PREVENTION

EEI maintains emergency equipment and has prepared procedures to help minimize damage to the environment and injury to human health that could result from fire, spill, explosion, or any unplanned or non-sudden release of hazardous waste.

### F.3a Emergency Equipment

Emergency equipment at EEI includes internal and external communications, fire control equipment, spill cleanup equipment, and first-aid equipment. All emergency equipment is inspected regularly and is repaired, as necessary, in accordance with EEI's inspection plan, to assure proper operation in time of an emergency.

#### F.3a(1) Internal Communication System

A telephone system with paging ability, portable two-way radios, horns, and alarms are used at EEI for internal communications. The telephone system provides internal and external communications and is available in the Main Building and in the Annex. The phones can also be used to instruct or warn workers over an intercom system. Two-way portable radios are carried by supervisors. Three air-horns are located in the Main Building and two are provided in the Annex. The lab pack room is equipped with an electric horn. A single blast on the horn alerts employees to evacuate the building. The combined intrusion and fire alarm system is automatically triggered when the system senses a problem.

#### F.3a(2) External Communications

EEI has a telephone system that is available in the Main Building and the Annex. In case of a malfunction, emergency outside lines can be accessed in the Electrical Room, or pay telephones, located in the Employee Break Room or Frisch's Restaurant across Spring Grove Avenue, can be used. Furthermore, in an emergency, the combined intrusion and fire alarm system notifies Mills Security, which then summons the proper authorities and EEI

emergency coordinators.

### F.3a(3) Emergency Equipment

The facility is equipped with fire control equipment, spill control equipment, and decontamination equipment. Personnel protection equipment, which may be used in conjunction with these control equipments is discussed in Subsection F.4e. First-aid supplies are also available at EEI. See Figures B-6 and B-8 for locations of emergency equipment.

Twenty-five dry-chemical fire extinguishers, prominently identified by signs and red markings, are maintained in the Main Building. Two of these are portable Metal-X fire extinguishes for sodium metal fires in the reactor room. Two are portable carbon dioxide fire extinguishers. A Purple-K fire extinguisher system for the sodium storage area and reactor room is located outside the water reactive storage area. The Annex is equipped with five dry-chemical fire extinguishers. In addition to these fire extinguishers, there are three fire hoses in the Main Building and a sprinkler system, which automatically notifies Mills Security of a fire.

The following spill control equipment is located at EEI.

- 3M oil sorbent pads for solvent and oil spills
- Oil-Dri for solvent and oil spills
- Calcium carbonate to neutralize acids, alkalies, and water reactive materials
- Spill control booms and sorbent booms
- Plug and dike sealant for leaking containers and tanks
- Two and three-inch pumps and hose for non-flammable liquids or water
- Two-inch diaphram pump for flammable liquids
- Drum pumps (stainless steel and explosion proof)
- Two-inch trash pump for slurries and sludges
- Air compressor to operate pump (not for breathing air)
- Forklift with barrel attachment
- Pallet mover
- Shovels, brooms, buckets, mops, tools, bung wrenches, etc.
- Empty 55-gallon D.O.T 17H and 17C containers
- Empty 30, 85, and 110-gallons over pack containers

After an emergency incident, decontamination equipment would be used to decontaminate affected portions of the facility. Expendable decontamination equipment includes sorbent, booms, etc. from the spill control supplies. Reusable items include tools, chemical suits, material handling equipment, etc.

### F.3a(4) Water for Fire Control

Water is provided by the City of Cincinnati at a minimum of 60 pounds per square inch (psi) through a six-inch riser. This provides sufficient water volume and pressure to supply fire fighting equipment.

### F.3b Aisle Space Requirements

Sufficient aisle space is provided for the inspection of the container storage area and to take preliminary emergency response action to stop a leak or prevent further migration of spilled materials. A minimum of thirty inches aisle space provides adequate space and will be maintained, except for Area 7 and Area 9, for detection of leaks and movement of emergency personnel and equipment where needed. A forklift, is used in the event of an emergency, to gain access to the leaking container for further action. Aisles have been painted on the floor for the placement of containers during storage. Large main aisles are maintained for the movement of equipment and inbound QA/QC staging where required.

## F-4 PREVENTIVE PROCEDURES, STRUCTURES, AND EQUIPMENT

### F.4a Loading/Unloading Operations

All loading/unloading of bulk wastes is performed within curbed areas at the Main Building or Annex. The locations of these areas are indicated on Figures D-1 and D-10. During these operations, spills are unlikely; however, in the event of an accident, the material will be contained with industrial absorbent, sorbent pads, or booms and, if necessary, neutralizing agents such as soda ash or lime.

The following precautions are taken when unloading or loading containers. Once the vehicle has been backed to the dock, the dock plate is lowered and the vehicles secured (wheel chocked or tractor attached). The containers are then removed or loaded by forklift trucks equipped with a drum handler or by hand dollies. During unloading, wastes are segregated by profile number or DOT hazard class. This separates incompatible wastes during the QA phase of acceptance.

Roll-off containers are directly unloaded onto the concrete surface at the rear of the Main Building and Annex and then moved into position by forklifts. Dump trucks are unloaded directly into roll-off boxes. Bulk liquids are loaded/unloaded using hoses and pumps provided with the transport vehicle or by EEI.

### F.4b Prevention of Run-Off

All storage, treatment, and loading and unloading areas are located in curbed areas to prevent run-on and run-off. Each of the storage and treatment areas are located indoors and not subject to precipitation, with the exception of Tank #3 and the rolloff containers.

For the indoor units, routine inspections and their location control run-off from these areas.

Tank #3 is located in a curbed area on the southeast side of the Main Building. The tank is inspected on a daily basis to identify and prevent any situations that may result in runoff.

The rolloff containers are also located within areas that are equipped with curbs to prevent runoff. The rolloff containers are equipped with waterproof tarps that cover the containers at all times, except during loading.

### F.4c Water Supply

Local water supply is a municipal piped system provided by Cincinnati Water Works. There are no wells or cisterns in use in the area. Contamination of local water supplies will not occur as a result of a spill from facility operations. The entire facility serves as a secondary containment structure. Any spills in the building will be contained. Provision has been made to contain fire suppression water.

City water connections to tanks provide an air gap to prevent backflow of waste into the water line. Additionally, a backflow preventer prevents reverse flow of water from the facility into city water mains. The backflow preventer is tested annually by a licensed plumber, in accordance with Cincinnati Water Works Regulations.

### F.4d Equipment and Power Failure

In the event of power failure, no adverse effects on the facility or the environment are anticipated.

All valves are manually operated, there is no risk of automatic electrical controls releasing wastes during a power outage. In the event of power failure, processing of all wastes would stop. Treatment of acids and bases, or other wastes in the treatment tank, would be suspended due to the loss of power for the scrubber and agitation. Waste treatment in the reactor would also be suspended due to the lack of ventilation. The shredders requires electrical power for operation of the shredder motor. Also, if the LEL system for Shredder #1 experiences a power failure, the shredder is automatically locked out and will not operate. Power failure while processing in any of these events will have no adverse effect or create any hazardous situation.

Emergency lighting is available on-site in the event of power failure at night. During day light hours, sky lights would provide sufficient illumination of the facility.

## F.4e Personnel Protective Equipment (PPE)

EEI provides all personnel with the following equipment for personal safety.

- Uniforms
- Gloves
- Boots
- Hard hat
- Safety glasses
- Air purifying respirator and cartridges

The facility also provides the following job specific PPE. Employees are trained to have the correct PPE required for the various types of materials and hazards which they may encounter. These items are maintained in the centrally located safety equipment cabinets.

- Tyvek suits
- Polycoated tyvek suits
- PVC suits
- Encapsulation suits
- Face shield
- Goggles
- Full-face air purifying respirator
- Full-face supplied air respirator
- Supplied hoods
- Self-contained breathing apparatus

The Main Building is also equipped with a piped-breathing air system, eye-wash stations, and showers to prevent the undue exposure of personnel to hazardous waste. The piped breathing air system supplies air to 15 plug-in stations located in the following areas.

- Flammable storage area (Area 14)
- Treatment tank area (Area 8)
- Loading/unloading area (Area 4)
- Lab pack area (Area 15)
- Stabilization room

Eye-wash stations and emergency showers are located throughout the Main Building in compliance with OSHA rules. In addition, a first-aid room is also equipped with a shower and eye-wash station for follow-up decontamination and minor first-aid treatment (see Figures B-6).

Substantial training is provided annually for Plant employees regarding proper selection and use of all safety equipment, policies and procedures. These procedures include the OSHA lead standard, decontamination, and various other items, as described in

Section H of this application.

In addition to the above on the job precautions, all employees are required to take a shower before leaving for the day. EEI also provides the service of laundering employee's dirty uniforms to prevent taking material home to unsuspecting spouses or children.

## F.5 PREVENTION OF REACTION OF IGNITABLE, REACTIVE, AND INCOMPATIBLE WASTE

EEI combines employee training, designated procedures, and safety equipment to prevent the reaction of ignitable, reactive, and incompatible wastes.

### F.5a Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Waste

*General*

- Containers are not reused except lab pack containers
- No smoking signs
- Segregation of ignitable, reactive, and incompatible wastes
- Curbed loading and unloading areas to prevent runon and runoff
- Sprinkler system
- Dry chemical fire suppression for water reactives
- Fire walls to prevent flame spread
- Explosion relief panels
- Backflow preventors on water lines
- Air gaps on water lines
- Chemical hazard information available to all personnel via computer
- Hot work permits

*Flammable Handling*

- Spark proof tools
- LPS rated forklifts
- Air operated pumps
- Grounding and bonding
- Compatibility testing
- Nitrogen blanketing
- LEL monitoring
- Curbed area to prevent migration to other areas
- Floor level ventilation

***Reactor Tank #6***

- Nitrogen blanketing
- ASME rated vessel
- Rupture disk
- Air lock
- Interlock valves
- Dry chemical extinguishing system

***Treatment Tanks***

- pH monitoring
  Temperature monitoring
  ORP Monitoring

***Shredder #1***

- Interlocked ventilation system
- LEL monitoring
- Nitrogen blanketing
- Sparkproof tools
- Grounding and bonding
- Pneumatic transfer of liquids
- Limited feed rates
- Automatic fire suppression system
- Water quench (flood) system

***Oxidizers***

- Segregated away from organics
- Decontamination of treatment tanks

***Cyanides and Sulfides***

- Segregated from acids
- Decontamination of treatment tanks
- Treatability studies prior to actual treatment
- Only added to tanks with alkaline pH
- Not mixed with other wastes
- Decontamination of treatment tank prior to T27 treatment
- Slow addition of reagents

*Other Reactives (picric acid, phyrophorics, Sodium Azide, etc.)*

- Material only accepted wet or as solution
- Material immediately placed in solution

### F.5b General Precautions for Handling Ignitable or Reactive Waste and Mixing of Incompatible Waste

No smoking signs are posted at all entrances of the facility and in all areas where ignitable or reactive wastes are treated and/or stored. Prior to treatment, in addition to a review of wastes by QA technicians for compatibility etc., samples of wastes are placed in a five-gallon container to evaluate their reaction (i.e., excessive heat, splatting, bubbles, or fumes). During treatment, wastes are added slowly and in small quantities. In the event of a violent reaction, workers would cease adding the incompatible waste and take the necessary steps to control the situation (e.g. use fire extinguishers, call supervisor for assistance, etc.). Sampling and compatibility testing for flammable liquids is presented in Attachment D-12.

### F.5c Management of Ignitable or Reactive Wastes in Containers

As shown on Figure B-6 and B-10, ignitable and reactive wastes are stored inside a building which meets the high hazard storage requirements under the Ohio Basic Building Code in compliance with NFPA 30 requirements.

### F.5d Management of Incompatible Wastes in Containers

During waste acceptance procedures, received wastes are reviewed and any incompatible wastes are removed from their container and repacked with compatible wastes. Staging areas are kept free of leaking containers by immediately over-packing any containers that arrive at the facility and are found to be leaking. No leaking drums are placed in the staging area. In the unlikely event that a drum leaks while in the staging area, the volume of material would not be sufficient to come into contact with wastes stored in the area, since the containers are stored on pallets. During treatment, procedures discussed in Section D ensure that only compatible wastes are treated and then containerized together.

The only containers reused by this facility are those from lab pack treatment processes and are only used for containerizing inert solid material. All other containers are decontaminated and either crushed and sent offsite for disposal or sent offsite for commercial cleaning and reconditioning. This precludes the commingling of incompatible

materials.

As described in other sections of this application, wastes are stored on pallets in segregated areas of the facility to prevent commingling of incompatible wastes in the event of a spill.

Management of wastes in containers is accomplished by segregation of wastes in containers; i.e., acids and bases are not in same container, etc., and only DOT approved containers are accepted. For example, corrosive acids are only received in plastic containers or plastic-lined containers. This acidic procedure helps prevent accidental releases of the container contents. As mentioned in several previous sections, segregation of wastes stored within the facility further reduces the possibility of commingling of incompatible wastes.

### F.5e Management of Ignitable or Reactive Waste in Tank Systems

EEI treats but does not store ignitable wastes in tanks. All bulk flammable liquids are stored in a separate area of the building, Area 14. This area is equipped with a Lower Explosive Limit (LEL) monitor, sprinkler, fire extinguishers, and floor level ventilations as safety precautions. Prior to blending or consolidating any of these wastes, samples are taken to check compatibility.

While transferring these wastes, the containers are grounded and or bonded. While transferring to the tank truck a nitrogen atmosphere is provided into the tank or tanker. Only spark proof tools are used to process these wastes. No Smoking signs and other warning signs are posted in the flammable liquid processing area. This entire area has been provided with explosion proof wiring and lights to eliminate sources of ignition. The pump used to transfer flammables is an air operated diaphragm pump. Included in Attachment D-12 (Written Procedures) is the written procedure for processing flammable liquids.

### F.5f Management of Incompatible Wastes in Tank Systems

All employees are trained regarding handling procedures, as described in the procedures manual, to prevent the mixing of incompatible wastes. The treatment tanks are decontaminated prior to changing processes in the tanks to prevent the commingling of incompatible wastes. (See Process Change Inspection Form in Attachment D-8).

As described in the analysis plan, all alkaline wastes received by EEI are sampled and checked for cyanide prior to neutralizing with acid. If treatment for cyanide was necessary, the treatment tank is sampled and analyzed for cyanide, total, and free cyanide. Based upon this analysis, the decision is made to further treat for cyanide or neutralize the resultant mixture. The cyanide concentration must be less than 20 ppm before neutralization is permitted.

While acids are being added directly to the treatment tank from containers, a "running" composite sample is prepared to check compatibility and observations are made for fuming, gas evolution, spattering, etc. If any of these conditions occur, the container is marked for special treatment. This special treatment may require different rates of addition. Special treatment may also involve those materials that may require special handling using proper personal protective equipment, such as a fully encapsulated suit with an air supplied respirator.

**F.5g to F.5n**

EEI does not operate any waste piles, surface impoundments, landfills, or land treatment units.

**F.5o Management of Ignitable, Reactive, or Incompatible Wastes in Miscellaneous Units**

In addition to pretreatment evaluations of waste streams, taken to ensure the compatibility of wastes and the safe treatment of ignitable and reactive wastes, the shredder are equipped with safety measures. Shredder #1 is equipped with LEL monitoring, ventilation, nitrogen blanketing, has an automatic fire suppression system, and a water quench (flood) system.

# Table

# F-1

## Inspection Schedule

## TABLE F-1

## INSPECTION SCHEDULE

| | Type of Problem | Frequency of Inspection |
|---|---|---|
| **Monitoring Equipment** | | |
| Combined fire and intrusion alarm system | Malfunction of smoke, flow, or intrusion detectors | Constant |
| Area LEL monitor (lab pack room and flammable storage area) | Properly functioning<br>Calibrated | Daily<br>Bi-Weekly |
| Tank 1 | Temperature and pH monitoring operational<br>Temperature and pH monitoring calibrated | Daily<br>Weekly |
| Tank 2 | Temperature and pH monitoring operational<br>Temperature and pH monitoring calibrated | Daily<br>Weekly |
| Tank 3 | High level alarm operational | Daily |
| Tank 4 | Sight tube operational | Daily |
| Shredder 1 | LEL monitoring system operational | Daily |
| Shredder 2 | Fire suppression system operational | Weekly |
| **Safety and Emergency Equipment** | | |
| Air-horns | Operational | Weekly |
| Electronic horn in lab pack room | Operational | Weekly |
| Fire extinguishers | Adequately charged | Weekly |
| First-aid equipment | Stocked supplies and check condition | Weekly |
| Hose and hose reels | Check if in good condtion | Weekly |
| Respirators and cartridges | Available | Weekly |
| Scott airpacks (SCBA) | Adequately charged | Weekly |
| Spill control equipment | Check for supply | Weekly |
| Supply of aborbent pads | 4 bales | Weekly |
| Supply of floor dry | 100 bags | Weekly |
| Supply of lime | 10 tons | Weekly |

SEP 0 5 2007

TABLE F-1 (continued)

| | Type of Problem | Frequency of Inspection |
|---|---|---|
| **Operating Equipment** | | |
| ***Container Storage Areas*** | | |
| Aisle space | At least 2 ft | Daily |
| Containers | Check for leaking, bulging, hissing, or corroding drums | Daily |
| Stacking of containers | Check height, leaning containers, and overhanging or damaged pallets | Daily |
| ***Tanks*** | | |
| Tank 1 | Sufficient freeboard (2 ft) | Daily |
| | Leaks, corrosion, discoloration, rust | Daily |
| | Pipes and ancillary equipment in good condition | Daily |
| Tank 2 | Sufficient freeboard (2 ft) | Daily |
| | Leaks, corrosion, discoloration, rust | Daily |
| | Pipes and ancillary equipment in good condition | Daily |
| Tank 3 | Sufficient freeboard (2 ft) | Daily |
| | Leaks, corrosion, discoloration, rust | Daily |
| | Pipes and ancillary equipment in good condition | Daily |
| Tank 4 | Volume less than half capacity | Daily |
| | Rupture disk in good condition | Daily |
| | Leaks, corrosion, discoloration, rust | Daily |
| | Pipes and ancillary equipment in good condition | Daily |
| ***Miscellaneous Units*** | | |
| Shredder 1 | Ventilation screens clear | Daily |
| | Ventilation interlock operational | Daily |
| | Leaks, corrosion, deterioration | Daily |
| Shredder 2 | Scrubber operational | Daily |
| | Leaks, corrosion, deterioration | Daily |
| ***Other*** | | |
| Liquid nitrogen tank level | Check number of inches | Daily |

SEP 0 5 2007

TABLE F-1 (continued)

| | Type of Problem | Frequency of Inspection |
|---|---|---|
| ***Structural Equipment*** | | |
| Secondary Containment (All storage unloading areas, tanks, and miscellaneous units) | Signs of cracks, gaps, damage, deterioration of floor, curbs, and ramps | Daily |
| | Spills, stains | Daily |
| Fences, gates, locks, and signs | Check if in good condition | Weekly |

# Attachment

# F-1

## Daily and Weekly Inspection Forms

# DAILY INSPECTION LOG

**Date:** _____
**Time:** _____

Nitrogen Generation System: O2 < 5% ____ Yes ____ No

| | Tank Freeboard 2 feet | | Signs of Tank Leakage or Corrosion | | Pipes or Valves Leakage or Corrosion | |
|---|---|---|---|---|---|---|
| | Yes | No | Yes | No | Yes | No |
| Tank #1 | _____ | _____ | _____ | _____ | _____ | _____ |
| Tank #2 | _____ | _____ | _____ | _____ | _____ | _____ |
| Tank #3 | _____ | _____ | _____ | _____ | _____ | _____ |

| | Yes | No |
|---|---|---|
| **Reactor (Tank #4)** | | |
| Structure | | |
| less than ½ full | _____ | _____ |
| signs of leaks or corrosion | _____ | _____ |
| damage to structural integrity | _____ | _____ |
| Rupture Disk | | |
| signs of leaks or corrosion around flange | _____ | _____ |
| Air-Lock System | | |
| Nitrogen line connected | _____ | _____ |

Monitoring Equipment and Controls

| | pH Meter Functioning | | Temperature Monitor Functioning | | High Level Alarm Functioning | |
|---|---|---|---|---|---|---|
| | Yes | No | Yes | No | Yes | No |
| Tank #1 | _____ | _____ | _____ | _____ | NA | NA |
| Tank #2 | _____ | _____ | _____ | _____ | NA | NA |
| Tank #3 | NA | NA | NA | NA | _____ | _____ |

Tank #4 Sight Tube Damaged Yes_____ No_____

| | Power On | | Fault Indication | |
|---|---|---|---|---|
| | Yes | No | Yes | No |
| **Shredder #1** | | | | |
| LEL system | _____ | _____ | _____ | _____ |
| Ventilation interlock operational | _____ | _____ | _____ | _____ |

| | Yes | No |
|---|---|---|
| Leaks or corrosion | _____ | _____ |
| Ventilation screens clear | _____ | _____ |

# DAILY INSPECTION LOG (Continued)

## Secondary Containment Structures

| | Are Curbs and Ramps In Good Repair | | Any Spills or Leaks Visible | |
|---|---|---|---|---|
| | Yes | No | Yes | No |
| Flammable storage area | ____ | ____ | ____ | ____ |
| Water reactive storage area | ____ | ____ | ____ | ____ |
| Reactor room | ____ | ____ | ____ | ____ |
| Acid and treatment tank area | ____ | ____ | ____ | ____ |
| Shredder room | ____ | ____ | ____ | ____ |
| Caustic storage area | ____ | ____ | ____ | ____ |
| Oxidizer room | ____ | ____ | ____ | ____ |
| Stabilization room | ____ | ____ | ____ | ____ |
| Loading/unloading area | ____ | ____ | ____ | ____ |
| Doorways on north wall | ____ | ____ | ____ | ____ |
| Annex | ____ | ____ | ____ | ____ |

| Year[2] | | Sufficient Aisle Space? | | Any Leakage/Bulging Hissing/Corroded Drums/Cylinder | | Stable Storage? | | Pallet Condition[1] | | < One |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Yes | No | Yes | No | Yes | No | Good | Poor | |
| Area 1 and 12 | Lab Packs | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| Area 2 – 6 | Poison, ORM, Corrosive | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| Area 7 | Caustic area | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| Area 8 | Acid Area | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| Area 9 | Oxidizer area | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| Area 10 | Shredder | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| Area 11 | Reactives | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| Area 13 | Corrosives | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| Area 14 | Flam-Liq | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| Area 15 | Lab Pack | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| Area 16 | QA Hold | | | | | | | | | |
| Area 17 | Oxidizer | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| Area 18 | Inbound QA | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| Area 19 | Outbound | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ | ____ |
| Area 20 | Alt Inbound | | | | | | | | | |

[1]Poor: Such as, but not limited to, pallets with a missing or damaged center board, or two or more missing end boards. Pallets to be repaired or replaced within 24 hours of inspection. (See comments below)

[2] Indicate with a √ that the area was inspected and that the container storage does not exceed one year. If this is not marked, see comments below.

LEL for lab pack and flammable storage area functioning: Yes ____ No ____

Any other pertinent comments:

Inspected by: _____

Summary of remedial actions taken:

# WEEKLY INSPECTION LOG

ENVIRONMENTAL ENTERPRISES, INC.
4650 SPRING GROVE AVENUE
CINCINNATI, OHIO 45232

Date: _____
Time: _____

Weekly Inspection

| | | | | | |
|---|---|---|---|---|---|
| Lower explosion limit monitor calibrated? | ____Yes | ____No | Security system functions? | ____Yes | ____No |
| By: _____ | | | Signage Adequate? | ____Yes | ____No |
| | | | Gate Operating Properly? | ____Yes | ____No |
| | | | Fence Condition? _____ | | |
| | | | 1) Damage? | ____Yes | ____No |
| pH meter calibrated? | ____Yes | ____No | 2) Breaks? | ____Yes | ____No |
| | | | 3) Structurally ok? | ____Yes | ____No |
| By: _____ | | | Dikes continuity maintained? | ____Yes | ____No |
| Fire extinguishers charged? | ____Yes | ____No | Respirators available? | ____Yes | ____No |
| Safety horns operational? | ____Yes | ____No | Respirator cartridges available? | ____Yes | ____No |
| Scott airpacks charged? | ____Yes | ____No | | | |
| Adequate supply of lime? (10 tons) | ____Yes | ____No | | | |
| Floor dry? (100 bags) | ____Yes | ____No | | | |
| Absorbent pads? (4 bales) | ____Yes | ____No | | | |

Summary of remedial action taken

Inspection by: _____

# INSTRUCTIONS
# DAILY INSPECTION

Record Liquid Nitrogen Level

Check Tanks 1, 2, and 3 for freeboard. Must be greater than 2 feet

Check Tank 4 for volume less than or equal to half capacity

Check Shredder #1 for debris which may clog ventilation screens

Check Tanks #1, 2, 3, and 4 for any signs of leakage or corrosion indicated by spills, residue, flaking, discoloration, or rust. Also check any associated piping, ancillary equipment, and other appertuances for same.

Check all monitoring devices for proper operation and function.

| | |
|---|---|
| Tanks #1 and 2 | Proper indication of temperature and pH |
| Tank 3 | Proper operation of high level alarm function including continuity. |
| Tank 4 | Check functionality of level indicator, i.e. not damaged and readable. |
| Shredder #1 | Inspect LEL control panel for fault indication.<br>- Check operation of ventilation system<br>- Fans operating, if shredder on and fans off indicate problem with interlock |
| Area LEL Monitor | - Check LEL control panel outside lab pack room for fault indication. |

Secondary Containment Structures

- Look for signs of cracks, gaps, or other damage which may jeopardize their integrity.
- Look for signs of spills or leaks into secondary containment. If noted, describe in comment section at end of form for prompt removal and proper disposition. Ensure removal within 24 hours.

Container Storage

- Check all doorway curbs and ramps for cracks, and other damage which may jeopardize their integrity.
- Check each storage area for sufficient aisle space.
- Check each storage area for leaking, bulging, hissing, or corroding drums.
- Check stacking of drums, leaning drums or drums overhanging pallets must be restacked.
- All fire extinguishers charged.
- If leaking containers are detected, note in appropriate space and overpack promptly. Note overpacking in remedial action at end of form.
- If distressed containers are detected, inspect carefully and, if necessary, overpack or repack and note remedial action.

## CLOSURE PLAN

This section serves to define the procedures to be followed upon closure of the PCB storage facility. The anticipated closure date for this facility is the year 2029. This is the same date of anticipated closure of the RCRA facility. This plan assumes that closure is to be performed by an outside contractor. The cost in this plan reflects this assumption.

## FACILITY DESCRIPTION

The facility, which contains the PCB storage area, is constructed of Portland Cement floors and walls. The floor and walls in the PCB storage are have been painted and sealed. The exterior soil consists of compacted clay and gravel under asphalt and concrete. There are no interior floor drains or sewers immediately adjacent to the PCB storage area. The exterior is protected from spills by Portland Cement curbs and ramps.

There are no public or private drinking water wells within five (5) miles of the facility and these wells are located up gradient of the facility. The potable water for the entire area is supplied by the Cincinnati Water Works. The doors to this building are labeled as PCB's as well as the walls and pillars adjacent to the PCB storage area.

The PCB storage facility will be closed by performing the following steps:

1. **Removal and Transfer** of all PCB wastes.
2. **Sampling and Analysis** of storage area and loading docks.
3. **Decontamination** as appropriate of storage area and loading dock and resample.
4. **Removal and Transfer** of PCB wastes generated as the result of decontamination *(IF REQUIRED).*
5. **Certification** by an independent professional engineer.

## 1. REMOVAL & TRANSFER

All disposal decisions are based on compliance with 40CFR761.60. All PCB fluids will be incinerated. All capacitors will be incinerated and all transformers will be shipped to a facility that is permitted for the acceptance of PCB's. At their discretion, they may landfill or decommission for reclaim. PCB contaminated debris/solids <500ppm PCB will be submitted for disposal via landfill. No liquids will be made solid and then landfilled. All materials are shipped off-site as received. Currently the sites used for PCB disposal are:

All transformers will be shipped off-site as received. EEI no longer drains or flushes transformers. PCB contaminated pallets and crates will be disposed of via the appropriate method as described above. Any debris, regardless of type, if contaminated by leaking capacitors or transformers will be disposed of via incineration.

We have disposal arrangements in place with the facilities listed above. We are reasonably assured of the available capacity at these facilities to accept the maximum inventory of PCB wastes at the time of closure.

The complete inventory of PCB wastes will be transported via highway using closed trailers for all drummed debris, drummed liquids, drummed or crated capacitors, and drummed or crated transformers.

Transformers, which are too large to be drummed, may be wrapped in plastic and shipped in closed trailers. Very large transformers unable to fit in a closed trailer will be wrapped in plastic and shipped via flat bed for drop deck trailer. Transformers may be provided secondary containment during transportation. See the attached list of transporters.

The maximum inventory is eighty (80) drums of oils, capacitors or debris and four (4) 9.5 cubic feet transformers or their equivalent. In order to assure sufficient funding, it is assumed that the inventory will consist of eighty (80) drums of high level oil and four (4) transformers.

## 2.SAMPLING AND ANALYSIS

After removal of all PCB material from the storage area, it will be assumed that the area is contaminated and decontamination will be performed. After decontamination the initial wipe samples of the PCB handling area shall be taken. A grid covering the entire handling area shall be established and samples taken from 4' x 4' or sixteen (16) square feet section of the grid. A maximum of forty (40) samples will be taken. Samples shall also be taken from the asphalt or concrete immediately adjacent to the loading dock. See attached drawing. In addition to the wipe samples, thirty (30) core samples shall be taken using a grid of 8' x 8' (64 sq. ft.). In addition, one core sample shall be taken from areas "D" and "E" each referenced in "CLOSURE OF PCB AREA MAP".

## SAMPLING METHODS

Standard wipe tests as defined in 40CFR761.123 are to be used to determine areas of contamination and to ensure compliance with numerical cleanup standards. Analysis of the samples will be by EPA Method 608 and 8080. Field Blanks will also be submitted for analysis.

Cores are to be drilled using concrete bits and a rotary hammer. All dust from each boring to a depth of 1" is collected and placed in glass containers for analysis. Core samples shall be taken of the floor of the PCB storage area and floor leading from the dock to the storage area.

At a minimum, the loading dock, the PCB containment area, floor and walls, the asphalt and concrete adjacent to the dock and any visible contamination must be sampled as outlined above.

In addition, core samples shall be taken of the floor of the PCB storage area and the floor leading from the dock to the storage area. One (1) core sample shall be taken for each 8' x 8' or 64 square feet of floor space using a grid similar to the one described in section 2 above.

Forklifts used to move materials shall also be sampled for contamination. One (1) sample from the forks of each forklift shall be sampled as above.

Sampling after cleaning, if necessary, shall also be by standard wipe test. A statistically significant number of samples shall be taken depending on the size of the area being decontaminated (one sample for each 4' x 4' square or 2' diameter circle). This assures compliance with 761.130, MRI sampling scheme and ensures 95% confidence of no false positives. In any case, a minimum of three (3) samples shall be taken WITH ~~and~~ a maximum of forty (40) samples. All inspection sampling to determine areas of contamination is to be performed at a minimum of level C protection. This WILL ~~should~~ include disposable shoe covers. All tyvek suits, gloves, etc. shall be collected and disposed of as PCB debris. No smoking, eating or drinking is permitted in the storage area. Good personal hygiene procedures shall be implemented at all times. Wipe samples shall also be taken of the asphalt or concrete immediately adjacent to the loading dock. See attached drawing.

**3. DECONTAMINATION**

It is assumed that the PCB storage area is contaminated after removal of PCB material, therefore decontamination will be initially performed by the following procedures:

> Apply one (1) gallon of kerosene for each forty eight (48) square feet to be cleaned. A mop or sprayer may be used. Allow the kerosene to sit for thirty (30) minutes and cleanup using hydrophobic sorbent pads such as those used for oil spill cleanup. Repeat application and cleanup, as above. After this second application, spread a granular sorbent over the area and sweep up and place in drum. Wash the area using an alkaline degreaser, according to the manufacturer's instructions. Absorb this liquid with oil-dri and rinse with clean water and absorb. Sample the area and repeat the entire procedure until the analysis indicates PCB's are less than $10ug/100cm^2$ since all areas are high contact industrial surfaces.

After the initial decontamination, if analysis of the storage area indicates the need for additional decontamination, the procedure will be repeated. This same procedure is used to decontaminate the unsealed concrete at the lading docks if necessary. Treatment is to continue as necessary to less than $10ug/100cm^2$.

Our experience in performing decontamination work for others indicates that this process is capable of sufficient cleaning to meet the numerical standards set in 40CFR761.125. However and if, after several cleanings, a steady state is achieved, which is above the numerical standards of 40CFR761.125, then the concrete should be removed via jack hammer and disposed of as PCB debris. The tools used to remove the concrete should be easily decontaminated using kerosene. The kerosene and rags should also be disposed of as PCB waste.

All areas of the facility will be considered high contact solid surface with a corresponding level of decontamination of 10ug/100cm$^2$.

The following materials and equipment will be needed during the cleanup process if sampling indicates PCB contamination greater than 10ug/100cm$^2$.

| | |
|---|---|
| Brooms | Drums |
| Hand Pump | Jack Hammer and Bits |
| Kerosene | Air Hose from the plants compressed air supply |
| Sorbent Pads | Tyvek Clothing |
| Clay Sorbent | Gloves |
| Socket Wrench | Shoe Covers |
| Bung Wrench | Samples Vials/Swabs (lab prepared) |
| Mop | Forklift |

Any of the above materials which come in direct contact with PCB contamination shall be disposed of as PCB debris with the exception of the Jack Hammer, and Forklift. These units shall be decontaminated to less than 10ug/100cm$^2$.

Trucks used to transport materials off-site shall be lined with plastic liners and the liner disposed of as PCB debris, if any leakage is encountered. Other suitable liners or pans may be used in place of polyethylene sheeting.

All samples from the lab and any equipment used by the lab for PCB analysis will be disposed of as PCB contaminated as needed. This includes glassware, GC columns, syringes, sample bottles, and wipes and any other items coming in direct contact with PCB's.

Follow-up analysis, if needed, after decontamination, will follow the sampling procedures used to identify areas in need of decontamination. The areas cleaned plus 2' in each direction shall be sampled.

## 4. REMOVAL AND TRANFER OF PCB WASTE

The waste generated as the result of decontamination is to be sent off-site for landfill at an approved PCB landfill. It is anticipated that eight (8) drums of sorbent pads, oil-dri, and contaminated equipment and clothing may be generated during decontamination.

## 5. CERTIFICATION

An independent professional engineer shall be employed to verify compliance with this plan and certify closure.

***NOTE: **See PCB Spills Cleanup Policy; 52 Federal Register 10688 Incorporated by Reference as part of this plan.**

## COST ESTIMATE

This cost estimate assumes the following quantities IN inventory at closure: eighty (80) drums oil >500ppm, capacitors >500ppm or debris >500ppm; and four (4) 9.5 cu.ft. at, transformers; twenty (20) pallets (equivalent of eight drums) <500ppm. The assumptions were made to assume worst case (maximum cost) calculation of costs. Costs are calculated in 2012 ~~1995~~ dollars.

### 1. REMOVAL AND TRANSFER

**Oil >500ppm – Incineration**
**Oil <500ppm – Incineration**

| | | |
|---|---|---|
| 80 Drums | Disposal @ $390.00/drum | $31,200.00 |
| 80 Drums | Transportation @ $75.00/drum | $ 6,000.00 |
| 40 Hours | Labor @ $35/hour | $ 1,400.00 |
| | | **$38,600.00** |

**Transformers-Incineration**

| | | |
|---|---|---|
| 4 Transformers | Disposal @ $0.67/lb X 1,000 lbs ea | $ 2,680.00 |
| Transportation | Transportation 6-skids @ $45/ea | $ 270.00 |
| 10 Hours | Labor @ $35.00/hour | $ 350.00 |
| | | **$ 4,640.00** |

**Soil-Incineration**

| | | |
|---|---|---|
| 4 drums | Disposal @ $1.71/lb (500lbs/dm) | $ 3,420.00 |
| 4 drums | Transportation @ $50.00/dm | $ 200.00 |
| 4 Hours | Labor @ $35.00/hour | $ 140.00 |
| | | **$ 3,760.00** |

**Tools/Pallets/Crates/PPE/Other Debris <500 ppm-Landfill**

| | | |
|---|---|---|
| 8 drums | Disposal $77.50/DM | $ 620.00 |
| 8 drums | Transportation @ $19.60/dm | $ 156.80 |
| 20 hours | Labor @ $35.00/hour | $ 700.00 |
| | | **$ 1,476.80** |

## 2. SAMPLING AND ANALYSIS

Assume four (4) sampling sets including two (2) wipes plus one (1) core sampling following decontamination.

| | | |
|---|---|---|
| 40 | Initial Analysis @ $60.00/each | $ 2,400.00 |
| 10 | Analysis of Tools and Equipment @ $55.00/each | $ 550.00 |
| 9 | Soil Analysis @ $75.00/each | $ 675.00 |
| 32 | Core Analysis @ $75.00/each | $ 2,400.00 |
| 80 | Resamples @ $55.00/each | $ 4,400.00 |
| 20 hours | Labor @ $35.00/hour | $ 700.00 |
| 24 hours | Core Sampling @ $35.00/hour | $ 840.00 |
| | | **$11,965.00** |

## 3. DECONTAMINATION

| | | |
|---|---|---|
| 2 drums | Drums Kerosene @ $3.90/GAL | $ 390.00 |
| 4 bales | Sorbent Pads @ $80.00/each | $ 320.00 |
| 20 bags | Oil Dri @ $12.00/ea | $ 240.00 |
| 12 gal | Degreaser ICC-118 OR equivalent | $ 90.00 |
| 10 | DOT UN1A2 drums | $ 220.00 |
| 10 | Disposal-Landfill @ $77.50/dm | $ 775.00 |
| 10 | Transportation @ $19.60/dm | $ 196.00 |
| 1 | Off-Site Approval | $ 300.00 |
| 80 hrs | Labor @ $35.00/hr | $ 2,800.00 |
| | | **$ 5,331.00** |

## 4. CERTIFICATION

| | | |
|---|---|---|
| 1 | Lump Sum | **$ 500.00** |
| | SUBTOTAL | **$66,272.80** |
| | Administration & Supervisor Cost @ 5% | **$ 3,313.64** |
| | Contingency 15% | **$10,437.97** |
| | **TOTAL** | **$80,024.41** |

None of the above costs include any salvage value for any of the wastes, structures, equipment, or other assets.

This Closure Plan and Cost Estimate do not include any items for the on-site lab at 4650 Spring Grove Avenue. That portion of the RCRA facility as addressed in the RCRA Closure Plan.

All of the above costs are based on current quoted costs from PCB disposal outlets. A copy of a typical quote is enclosed. These are the highest costs quoted.

**INSTRUCTIONS FOR CONTRACTOR**

There is no need for groundwater monitoring or run-on, run-off control, since the facility is under roof with a concrete floor. Security is provided by locked doors and keypad entrances.

SEE PAGE "SELECTED EEI OFF-SITE FACILITIES"

The following transporters may be used:

Tonawanda Tank Transport Service, Inc.
1140 Military Road
PO Box H
Buffalo, NY 14217
(716) 873-9703
NYD097644801
(All types of trucks)

MIDWEST ENVIRONMENTAL TRANSPORT
10163 Cincinnati-Dayton Road
Cincinnati, OH 45241
(513) 772-1145
OH0000000539
(All types of trucks)

The following lab can provide sampling and analysis:

TEST AMERICA
4738 Gateway Circle
Dayton, OH 45440
800-572-9839

Degreaser may be obtained from:

Intercontinental Chemical
4680 Spring Grove Avenue
Cincinnati, OH 45232
Product Code: ICC-118 OR equivalent

Kerosene may be obtained from any local oil company such as VULCAN ~~Gulf Oil~~ on Spring Grove Avenue in Elmwood, Ohio.

Sorbent pads may be obtained from any spill contractor supplier or safety equipment supplier including:

R.G. Metz Company
AIRGAS
Northern Safety Industrial

Oil-Dri may be obtained from General Factory Supply or Eagle Pitcher.

## CLOSURE SCHEDULE

| DAY | ACTIVITY |
|---|---|
| -90 | Notification of Closure |
| 0 | Stop Acceptance of PCB Wastes |
| 1-30 | Submit Off-Site Approval |
| 50-60 | Obtain Off-Site Approval |
| 70 | Ship Oils and Transformers Off-Site for Disposal |
| 70-80 | 1st Decontamination |
| 81-85 | Begin Sampling |
| 85 | Complete Sampling |
| 98 | Obtain Analysis Results |
| 100 | Begin 2nd Decontamination |
| 102 | Complete 2nd Decontamination |
| 103 | Resample |
| 120 | Begin 3rd Decontamination |
| 122 | Complete 3rd Decontamination |
| 125 | Resample |
| 140 | Ship Debris for Disposal |
| 170 | Certification of Closure |

# SELECTED EEI OFF-SITE FACILITIES

## INCINERATORS-PCB's

**Veolia Technical Solutions ES Port Arthur**
Hwy 73
Port Arthur, TX 77640
EPA ID: TXC000838896
Phone: (409) 736-2821
Sales Contact: Shawn Folley
Contact Phone: (937) 219-4232

**Clean Harbors Deer Park, LP**
2027 Battle Ground Road
Deer Park, TX 77536
EPA ID: TXC055141378
Facility Phone: (281) 930-2300
Sales Contact: Richard Grimm
Contact Phone: (207) 450-9065

## PCB TREATMENT

**Clean Harbors**
1672 E. Highland Road
Twinsburg, OH 44087
EPA ID: OHD986975399
Facility Phone: (330) 425-3825
Contact: Richard Grimm
Contact Phone: (207) 450-9065
Facility Fax: (330) 487-5784

**Clean Harbors**
1302 West 38th Street
Ashtabula, OH 44004
EPA ID: OHD981093420
Facility Phone: (440) 992-8665
Contact: Richard Grimm
Contact Phone: (207) 450-9065
Facility Fax: (440) 992-5784

## LANDFILL-PCB's

**Wayne Disposal, Inc. (EQ)**
49350 North I-94 Service Drive
Belleville, MI 48111
EPA ID: MID048090633
Facility Phone: (800) 592-5489
Sales Contact: Bob Nemeth
Contact Phone: (614) 766-9957

# 2012 CURRENT PCB DISPOSAL COSTS

| TYPE | DISPOSAL COST | TRANSPORTATION COST | FACILITY | TREATMENT |
|---|---|---|---|---|
| PCB Capacitors | $1.71/pound | $200/skid $50/Dm | ONYX Port Arthur | Incineration |
| PCB Light Ballast | $1.31/pound | $50/Dm | ONYX Port Arthur | Incineration |
| PCB Light Ballast | $ 77.50/55 DM | $19.60/Dm | Wayne Disposal | Landfill |
| PCB Solids (soil or Debris) | $1.71/pound | $50/Dm | ONYX Port Arthur | Incineration |
| PCB Solids (soil or Debris) | $ 77.50/55 DM | $19.60/Dm | Wayne Disposal | Landfill |
| PCB Solvents (HHW paint/solvents) | $517/55 DM | $16/Dm | Clean Harbors Deer Park Texas | Incineration |
| PCB Lab Packs | $179/30 gallon<br>$60/5 gallon | $37.50/ 30 DM<br>$15/5 DM | ONYX Port Arthur | Incineration |
| PCB Oil (>500 ppm) | $390/ 55 Drum<br>$225/30 Drum | $75/ 55 DM<br>$37.50/ 30 DM | Veolia Port Arthur | Incineration |
| PCB Transformers (>500 ppm) | $0.67 pound<br>Minimum<br>$236/Dm | $16/DM<br>$45/skid | Clean Harbors Deer Park Texas | Recycle Transformer Incinerate oil |
| PCB Transformers (<500 ppm) | $0.45 pound<br>Minimum<br>$236/Dm | $16/DM<br>$45/skid | Clean Harbors Deer Park Texas | Recycle Transformer Incinerate oil |

Notes: Clean Harbors will apply a variable recovery fee (currently 17.5%) of total invoice
Veolia will apply a variable recovery fee (currently 12%) of total invoice
Wayne Disposal will apply a state disposal fee of $2.20/DM

**JEFFERS ENGINEERING, LLC**
*Civil/Structural Engineering  Construction Management*
*8097 Quailwood Ct, West Chester, Ohio 45069*
*jjeffers@j2ce.com  513-543-5183*

July 18, 2012

Environmental Enterprises, Inc.
4650 Spring Grove Avenue
Cincinnati, Ohio 45232

Attn: Mr. Dan McCabe
President

Re: PCB Closure
Annex Building
4600 Spring Grove Ave

Mr. McCabe:

Jeffers Engineering, LLC is pleased to present herein our proposal to provide engineering services to provide a closure certification of the PCB Storage Area at the above referenced complex.

Services shall include on-site evaluation and observation of the area and a report detailing the activities. We propose to perform these activities for a lump sum cost of $500.00.

We appreciate the opportunity to be able to you on this matter. If have any questions or we can be of any further assistance, please notify us at your convenience.

Sincerely,

James R. Jeffers, P.E.
President
Ohio License No. E-61767

# TRUST AGREEMENT
# FOR
# CLOSURE

"TRUST AGREEMENT"

Trust Agreement. The "Agreement", entered into as of March 29, 2005 by and between Daniel J. McCabe, President, Environmental Enterprises Incorporated, an Ohio Corporation, the "Grantor", and Huntington Bank, a national bank, the "Trustee".

Whereas, the United States Environmental Protection Agency, "EPA", an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility shall provide assurance that funds will be available when needed for closure and/or post-closure care of the facility,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized offices has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, therefore, the Grantor and the Trustee agree as follows:

*Section 1. Definitions.* As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor trustee.

*Section 2. Identification of Facilities and Cost Estimates.* This Agreement pertains to the facilities and cost estimates identified on attached Schedule A.

*Section 3. Establishment of Fund.* The Grantor and the Trustee hereby establish a trust fund, the "Fund" for the benefit of EPA. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the EPA.

*Section 4. Payment for Closure and Post-Closure Care.* The Trustee shall make payments from the Fund as the EPA Regional Administrator shall direct, in writing, to provide for the payment of the costs of closure and/or post-closure care of the facilities covered by the Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the EPA Regional Administrator from the Fund for closure and post-closure expenditures in such amounts as the

EPA Regional Administrator shall direct, in writing. In addition, the Trustee shall refund to the Grantor such amounts as the EPA Regional Administrator specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

*Section 5. Payments Comprising the Fund.* Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

*Section 6. Trustee Management.* The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; *except* that:

(a) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. § 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

*Section 7. Commingling and Investment.* The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trust participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940 15 U.S.C. § 80a-1 et seq., including one, which may be created, managed, underwritten, or to which investment advice is rendered or the shares of, which are sold by the Trustee. The Trustee may vote such shares in its discretion.

*Section 8. Express Powers of Trustee.* Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary of appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund:

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or Stat government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

*Section 9. Taxes and Expenses.* All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

*Section 10. Annual Valuation.* The Trustee shall annually, at least thirty days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than sixty days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the trustee within ninety days after the statement has been furnished to the Grantor and the EPA Regional Administrator shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

*Section 11. Advice of Counsel.* The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

*Section 12. Trustee Compensation.* The Trustee shall be entitled to reasonable compensation for its service as agreed upon in writing from time to time with the Grantor.

*Section 13. Successor Trustee.* The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor Trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee will assign, transfer and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for the instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the present Trustee by certified mail ten days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section will be paid as provided in Section 9.

*Section 14. Instructions to the Trustee.* All orders, requests and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the EPA Regional Administrator to the Trustee shall be in writing, signed by the EPA Regional Administrators of the Regions in which the facilities are located, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that not event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the EPA hereunder has occurred. The Trustee shall have not duty to act in the absence of such orders, requests and instructions from the Grantor and/or EPA, except as provided for herein.

*Section 15. Notice of Nonpayment.* The Trustee will notify the Grantor and the appropriate EPA Regional Administrator, by certified mail within ten days following the expiration of the thirty-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed the Trustee shall not be required to send a notice of nonpayment.

*Section 16. Amendment of Agreement.* This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator, or by the Trustee and the appropriate EPA Regional Administrator if the Grantor ceases to exist.

*Section 17. Irrevocability and Termination.* Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust will be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

*Section 18. Immunity and Indemnification.* The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

*Section 19. Choice of Law.* This Agreement will be administered, construed and enforced according to the laws of the state of Ohio.

*Section 20. Interpretation.* As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof, the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 264.151 (a) (1) as such regulations were constituted on the date first above written.

[signature]
Grantor

President
Title

Attest: Cheri Scott Devaci
Title VP

Seal

The Huntington National Bank
By: Cheri Scott Devaci
Trustee VP

Attest: Darlene M. Hartmann
Title Account Relationship Assoc

Seal

CERTIFICATION OF ACKNOWLEDGMENT

State of Ohio
County of Butler

On this March 29, 2005 before me personally came Daniel J. McCabe to me known, who, being by me duly sworn, did depose and say that he resides at 6985 Sprucewood Court, Cincinnati, OH 45241, this he is President of Environmental Enterprises, Inc., the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

Darlene M. Hartmann
Signature of Notary

DARLENE M. HARTMANN
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES 01-19-08

EXHIBIT A

The following named officers of Environmental Enterprises, Incorporated (EEI) of Cincinnati, Ohio are authorized to make orders, requests and instructions under this Trust:

Daniel J. McCabe, P.E.
President

Dale French
Vice President

SCHEDULE B

The property of this Trust shall consist of an Irrevocable Letter of Credit No. OGB 003986 issued by Huntington Bank.

# CERTIFICATE OF INSURANCE

# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 3/4/2013

| PRODUCER | THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. | |
|---|---|---|
| (937)526-3111 FAX: (937)526-5178<br>Phelan Insurance Agency, Inc.<br>863 East Main Street<br>PO Box 1<br>Versailles OH 45380 | INSURERS AFFORDING COVERAGE | NAIC # |
| INSURED Environmental Enterprises, Inc.<br>Midwest Environmental Transport, Inc.<br>Expressway Commerce Co., Inc.<br>10163 Cincinnati-Dayton Road<br>Cincinnati OH 45241 | INSURER A: Westchester Surplus Lines | 10172 |
| | INSURER B: Ace Property & Casualty | 20699 |
| | INSURER C: | |
| | INSURER D: | |
| | INSURER E: | |

## COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | ADD'L INSRD | TYPE OF INSURANCE | POLICY NUMBER | POLICY EFFECTIVE DATE (MM/DD/YYYY) | POLICY EXPIRATION DATE (MM/DD/YYYY) | LIMITS | |
|---|---|---|---|---|---|---|---|
| A | X | GENERAL LIABILITY<br>X COMMERCIAL GENERAL LIABILITY<br>CLAIMS MADE X OCCUR<br>GEN'L AGGREGATE LIMIT APPLIES PER:<br>X POLICY PRO-JECT LOC | G24199770003 | 4/1/2013 | 4/1/2014 | EACH OCCURRENCE<br>DAMAGE TO RENTED PREMISES (Ea occurrence)<br>MED EXP (Any one person)<br>PERSONAL & ADV INJURY<br>GENERAL AGGREGATE<br>PRODUCTS - COMP/OP AGG | $ 1,000,000<br>$ 100,000<br>$ 10,000<br>$ 1,000,000<br>$ 2,000,000<br>$ 2,000,000 |
| B | X | AUTOMOBILE LIABILITY<br>ANY AUTO<br>ALL OWNED AUTOS<br>X SCHEDULED AUTOS<br>X HIRED AUTOS<br>X NON-OWNED AUTOS<br>X CA9948 applies | H0845310A 003 | 4/1/2013 | 4/1/2014 | COMBINED SINGLE LIMIT (Ea accident)<br>BODILY INJURY (Per person)<br>BODILY INJURY (Per accident)<br>PROPERTY DAMAGE (Per accident) | $ 1,000,000<br>$<br>$<br>$ |
| | | GARAGE LIABILITY<br>ANY AUTO | | | | AUTO ONLY - EA ACCIDENT<br>OTHER THAN AUTO ONLY: EA ACC<br>AGG | $<br>$<br>$ |
| A | X | EXCESS / UMBRELLA LIABILITY<br>X OCCUR CLAIMS MADE<br>DEDUCTIBLE<br>RETENTION $ | G24199885 003 | 4/1/2013 | 4/1/2014 | EACH OCCURRENCE<br>AGGREGATE | $ 6,000,000<br>$ 6,000,000<br>$<br>$<br>$ |
| | | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY<br>ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N<br>(Mandatory in NH)<br>If yes, describe under SPECIAL PROVISIONS below | G24199770003<br>Employer's Liability | 4/1/2013 | 4/1/2014 | WC STATU-TORY LIMITS OTH-ER<br>E.L. EACH ACCIDENT<br>E.L. DISEASE - EA EMPLOYEE<br>E.L. DISEASE - POLICY LIMIT | $ 1,000,000<br>$ 1,000,000<br>$ 1,000,000 |
| A | | OTHER Contractor Pollution | G24199770003 | 4/1/2013 | 4/1/2014 | Contr Pollution | $1,000,000 |
| A | | Professional Liab | G24199770003 | 4/1/2013 | 4/1/2014 | Professional Liab | $1,000,000 |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

Certificate holder is Additional Insured as required by written contract or written agreement on General Liability Form #'s ENV-3100 (8/04), ENV-3101 (8/04) and ENV-3225(10/08) and Automobile Liability Form # DA6Z04 (05/00).

**CERTIFICATE HOLDER**

United States Environmental Protection Ag
Region 5
77 W Jackson Blvd
Chicago, IL 60604

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE
Timothy Grow/SARA

# IRREVOCABLE LETTER OF CREDIT

The Huntington National Bank
International Operations - EA4C57
7 Easton Oval
Columbus, OH 43219
SWIFT: HUNTUS33
614-480-INTL (4685) - Customer Service
877-480-INTL (4685) - Toll free from within US

Huntington

Irrevocable Standby Letter of Credit
OSB.003286
Issued: 04/28/05

Beneficiary:

U.S. Environmental Protection
Agency, Regional Adm., Region V
77 W. Jackson Blvd.
Chicago, IL 60604

Applicant:

Environmental Enterprises, Inc.
10163 Cincinnati-Dayton Road
Cincinnati, OH 45241

Issue Date: 04/28/2005
Amount: USD$107,000.00
Expiration Date: 04/28/2006

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit No. OSB.003286 in your favor, at the request and for the account of Environmental Enterprises, Inc., 10163 Cincinnati-Dayton Road, Cincinnati, OH 45241, up to an aggregate amount of One Hundred Seven Thousand and Zero One Hundredths United States Dollars (USD$107,000.00) available upon presentation of:

1. Your sight draft bearing reference to this Letter of Credit No. OSB.003286, and

2. Your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under the authority of the Toxic Substances Control Act as amended."

This Letter of Credit is effective as of 04/28/2005 and will expire on 04/28/2006. It is a condition of this Letter of Credit that it shall be deemed automatically extended without amendment for one (1) year from the present and any future expiration date hereof, unless, at least one hundred twenty (120) days prior to the current expiration date, we notify you and Environmental Enterprises, Inc. by certified mail that we have decided not to extend this Letter of Credit beyond the current expiration date.

Whenever this Letter of Credit is drawn under and in strict compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we will deposit the amount of the draft directly into the



COPY

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standby trust fund of Environmental Enterprises, Inc. in accordance with your instructions.

We certify that the wording of this Letter of Credit is identical to the wording specified in 40 CFR 264.151(D) as such regulations were constituted on the date shown immediately below.

This credit is subject to the Uniform Customs and Practice for Documentary Credits (1993 Revision), International Chamber of Commerce Publication No. 500.

The Huntington National Bank

Gayla Strickler
Authorized Signature

Assistant Vice President
Title

4-28-05
Date

Printed: 04/28/05 3:54 PM ITGS563 SE_Letter_of_Credit.htm

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COPY

**The Huntington National Bank**
International Operations - MA1200
17 S. High St.
Columbus, OH 43215
SWIFT: HUNTUS33
614-480-INTL (4685) - Customer Service
877-480-INTL (4685) - Toll free from within US

Huntington

Date:01/11/11

Courier/Registered Mail

U.S. Environmental Protection
Agency, Regional Adm. Region V
77 W. Jackson Blvd.
Chicago, IL 60604

Ladies and Gentlemen:

This is to advise you that we hereby rescind our notice of non-extension under our Letter of Credit OSB.003286, dated 04/28/05, in the amount of USD 107,000.00, in your favor for the account of ENVIRONMENTAL ENTERPRISES, INC..

All terms and conditions of this Letter of Credit remain unchanged.

Sincerely yours,

Frank W. Fischer

Authorized Signature

Printed: 01/11/11 2:43:57 PM CCKH004 Cancellation Recession